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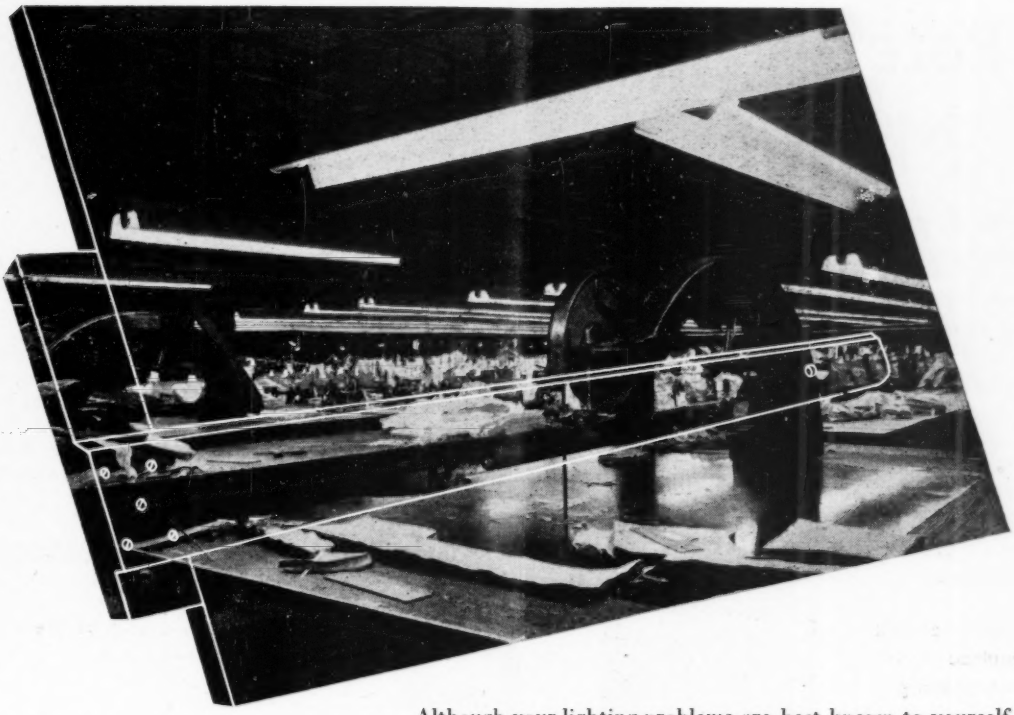

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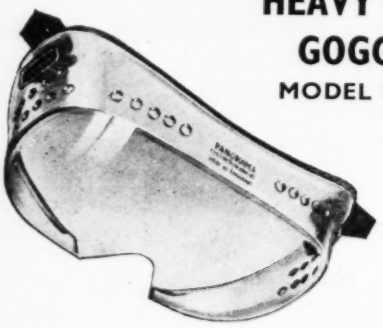

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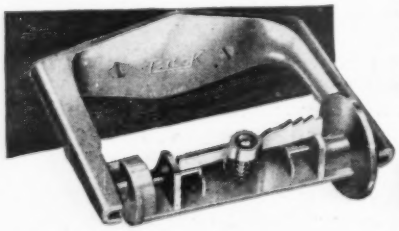

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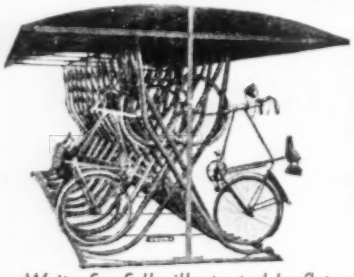

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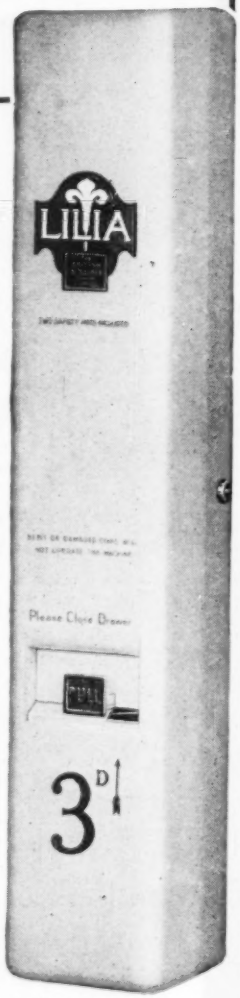

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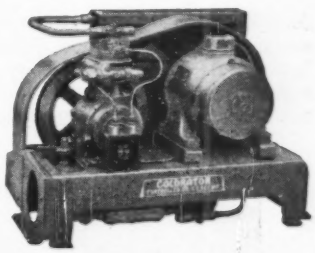

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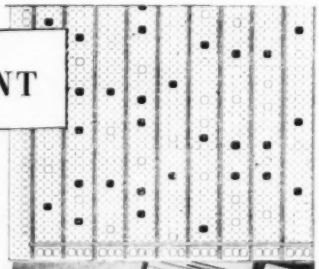

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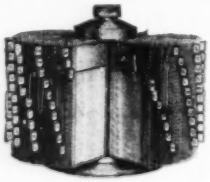

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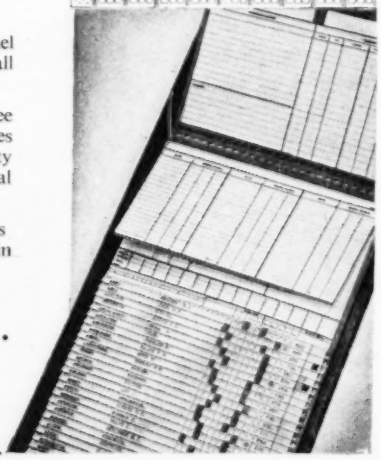

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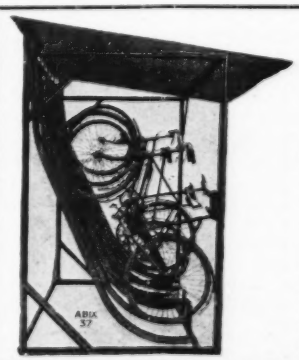

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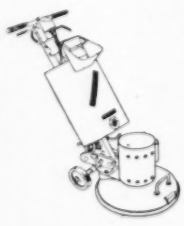

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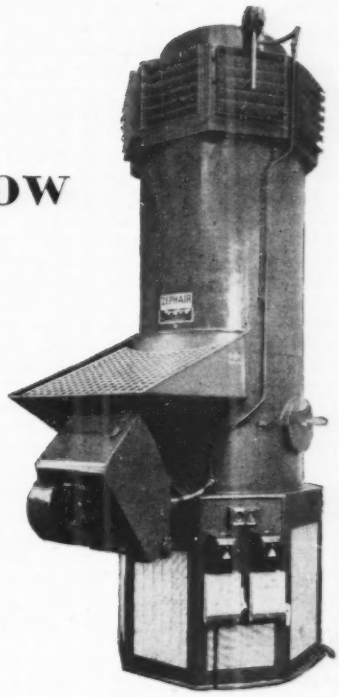
What Every Management Should Know About Heating

By **A. C. MANN,** *Member of the Institute of Heating and Ventilating Engineers*

The Factories Act, 1937, specifies the atmospheric conditions to be maintained in factories. There are many ways of providing these conditions, the method chosen depending on the type of building and the processes carried out in it. The author outlines the basic facts which should be borne in mind by all managements who are contemplating the installation of a new heating system or weighing up the good and bad points of their existing one.



For direct heating. This direct-fired air heater with automatic coal stoker can be gas-fired as an alternative. *(Sheet Metal Specialities Ltd. photo.)*

PROPER heating is often looked on as a necessary evil, for the benefits it brings cannot be assessed in cash, as can those from new machines. The indirect benefits, however, are very important. With unsatisfactory heating, output suffers and sickness among workers increases. This can be as true of over-heating as of under-heating, and if the necessity for ventilation, or proper air supply, is not taken into account, the trouble is aggravated. Careful thought should be given, therefore, to the installation of a heating system, and the running cost as well as the initial cost of the various arrangements calculated before a decision is reached.

There are two basic methods of heating a building: direct and central heating.

Direct heating has made great progress in the last decade. It has the advantages that no special room or building is required to house the plant, a large chimney is unnecessary and generally the installation cost is lower than that of a comparable central heating plant. On the other hand, floor space may be taken in the working areas, the heaters can tend to be local in heating, and if solid, gaseous or liquid fuel is burnt in them, a metal chimney must be run from each through the roof. The type of heater in which the fuel is burnt may not be suitable owing to the fire hazards in a particular factory, to the necessity of keeping down the dust content of the air, or because the noise level must be reduced.

Direct heaters are made to burn or utilise any fuel, whether coal, coke, wood, oil, gas or electricity, and can take the form of stoves, radiators, convectors, unit heaters, panels (both luminous or black surface), etc., or combinations of these. As all of these types of heaters, with the exception of stoves, can be used in a modified form in a central heating system, a description of them is given under that heading.

Stoves used for direct heating are of the slow burning type, and are now made to be highly efficient. They can operate a small domestic hot water system or a single radiator for heating a small office. Such a stove provides mainly direct radiation at high temperatures from the cast-iron body, similar to the heating effect of an open fire. There is some heating of the air surrounding it, so that warm currents of air are caused to circulate nearby. It can be fitted with automatic controls.

When considering the use of direct heaters for the factory, management should bear in mind the heating of the office section. With purchase tax payable on small gas or electric units, such as convectors, radiators, fires, and the like, the initial cost of heating these auxiliary spaces may rise out of all proportion to that of heating the main building. Also, unless time switching is employed, it will be necessary for someone to go round each morning to start up the office heaters before the staff arrive, and possibly to switch off at night after they have gone home.

Washing facilities for workers and staff and hot water for kitchen washups and coat drying arrangements must also be catered for. These amenities can generally be incorporated if a central plant is envisaged. If the heating is done by direct heaters, however, either a central hot water system is required, or a number of direct water heaters, either gas or electrically operated, must be installed for each group of basins, sinks, etc.

The other basic method, **central**

heating, is the more usual type to be found in factories in this country. It comprises three sections—the boiler in which fuel is burnt to heat water or other liquids, a system of piping to carry the heated fluid, and heat-emitting units in the factory.

Any fuel—coke, coal, oil, gas and electricity—can be used in the boiler. There are grades and types of all these fuels, except electricity, at various prices; but apart from fuel cost, the following are among the factors which have to be taken into account in assessing the total cost: availability of the fuel, labour in stoking or attendance, and the necessity for controlling within limits the output from the system.

The minimum amount of labour should be used in running a heating system, especially where shift working is involved. The high cost of such labour, added to the present high price of solid fuels of varying qualities, brings the cost of such a method near to, or more than, that of automatic coal stoking or oil firing, without the advantages of automatic control and the higher efficiency of those fuels.

Where steam is not required for other purposes, and for factories which are not too large, low pressure hot water is still the most usual and convenient medium for heating.

For large factories, or where a number of buildings are to be supplied from the central source, hot water at low pressure is not suitable, owing to the large diameter piping required and the consequent additional cost of heat insulation of mains and the large circulating pumps necessary. The media employed under such conditions are steam or high pressure hot water, the latter being a more recent introduction. The central, or boiler, plant is, with modifications, similar for both systems, but with high-pressure hot water there are no steam traps or pumping sets for returning condensate to the boiler. All-welded connections are used on the high-pressure hot water system, and specially strengthened pumps and valves are required.

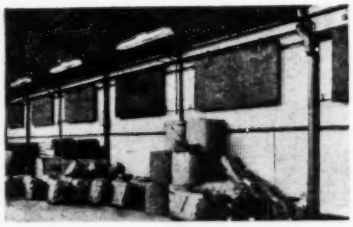
The third, and from the occupants' viewpoint, the most important section of a central heating installation is the heat unit at the ends of the pipes. The forms that these units can take are varied, and the units may be all of one type or a combination of any number in the same building.

Pipes and Radiators

In some older installations the pipes themselves are used to distribute heat to the building, and can be hung from roof trusses, or run along walls near the floor. They can be plain pipes, or pipes fitted with fins or gills to give a greater amount of surface to transmit the heat. Where pipes are hung from roof trusses only, there is a great difference in temperature between the upper and lower levels of the room, the temperature at working level being much lower than it is near the roof. Pipes along walls have the disadvantage of occupying floor space, and can easily be shielded by benches, machines, etc., which reduce their capacity for heating.

A combination of overhead pipes to offset the heat emission from the roof, and cast-iron or steel radiators along outside walls, under windows, near doors and by stanchions, provides one of the best methods of heating factory buildings.

Radiators can be of the normal type which primarily start warm air currents circulating, with some direct radiating effect, or of the convector type in which, either naturally or with the aid of fans, a heater in the base sets up air circulation.



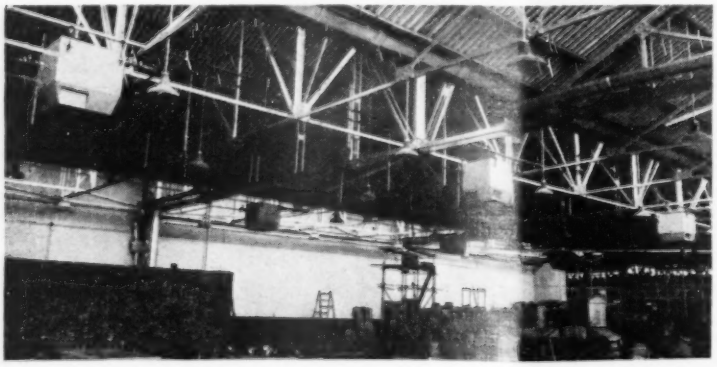
A panel heater installation such as this is neat and easy on space. The heating medium can be steam or hot water.

Unit heaters (large heat distributing units in a small compass) can be of the suspended pattern for hanging from roof trusses and walls, or of the large floor type. They consist of a battery of tubes finned to give a large heat-emitting surface and contained in a steel case. A fan driven by an electric motor blows air over the battery into the space which is to be heated.

Where manufacturing processes in the factory call for air to be extracted from the building, such as in a woodworking shop, unit heaters can be fitted with ducts run down through the roof or through walls to replace the air taken out by extract ventilating fans. Also, they can be used in summer for circulating the air in the building, thus providing some ventilation.

With hot water heating, it will be found that heating-up and cooling-down is very much more rapid where the water content of the system is small, such as with unit heaters and flat type radiators, and it is necessary to start such systems early on cold mornings to provide the necessary temperature when work starts. With radiators and piping systems on the other hand, the bulk of water contained is greater, and such systems retain their heat during the night with a banked or low-burning fire in the boiler.

Panel heaters, which emit direct heat rays, are a recent innovation for factory heating, and consist of a flat steel plate to the back of which is attached a pipe coil carrying steam or water. They can be hung from roof members or walls and are set at an angle so that the rays are directed down to the workers.



Downstream unit heaters operating on high-pressure hot water in a large instrument factory. *(Copperad Ltd. photo.)*

How Management Can Gain From Efficiently Maintained Personnel Records

Visible edge records systems, like this one, are suitable for any size of firm, and can be extended indefinitely.

By WINIFRED GODE

A good personnel records system should be economical to install, easy to maintain and capable of producing quickly and accurately the information management needs. This article presents general principles and reviews the practice of different-sized firms whose personnel records systems are good examples of their kind.

"THE value of personnel records depends upon the accuracy with which they are maintained and the use which managements make of them," commented a personnel manager to the writer. This may appear to be stating the obvious, but in practice it is not nearly as obvious as it appears. Records may vary from pencilled scraps of paper pushed into a bulging file to a large room full of filing cabinets and tabulating machines. The former will probably not tell anybody anything; the latter may be able to show how many blue-eyed babies were born to the wives of foundrymen in 1939—but management will probably not be interested anyway! Somewhere between these two extremes is the ideal records system—economical to install, easy to maintain, capable of producing quickly and accurately the information which management requires in the daily conduct of the business.

What are personnel records? One firm, prior to re-organisation, had no less than 195 record forms and cards, covering everything from the "application for employment" form to "tea chits." For the purpose of this article, "personnel records" cover the employee's personal record card or file, and the related labour, absentee and lateness, medical and accident records.

Accurate personnel records, suitably presented and properly interpreted, reflect the strength or weakness of the labour force in an organisation and indicate where corrective action is necessary. The first thing to be decided is what facts are required; the second, how to record them. Both these factors will be determined to some extent by the size and complexity of the organisation, but there is certain basic information which is essential to every organisation.

The corner stone of this information is the individual employee record, or as it is frequently termed, the *personal record or file*. This should give a complete picture of the employee and the history of his progress in the company. It should be filed alphabetically under the surname, and generally contains the following information: Name; address; date of birth; sex; nationality; whether married or single; number of children; next of kin; national service details; national insurance card number; education; technical or other special qualifications; trade union; details of previous employment; date started with the company, date left, reason for leaving; department for which engaged; clock number; type of work—permanent, temporary, full-time, part-time; wage rate; deductions from wages—income tax, national insurance, etc.; superannuation and sick pay; transfers and promotions; absentee and lateness record; medical report.

Some firms do not agree to the inclusion of the medical report on the grounds that such information is strictly confidential and should be known only to the medical department. Others compromise by including a minimum of information such as whether an employee is a registered disabled person, or whether he has had an accident at work, or—where there is a pre-employment examination—whether he is unfit to do certain types of work. Where selection tests are used results of these are usually recorded on the personal record, as are also progress in apprenticeship or other training schemes.

Some firms include a detailed account of the employee's leisure-time activities, and a section headed "general notes" or "remarks." Perhaps a warning note should be sounded as to what goes into the latter section. The extent to which an employee's private life is the concern of his employer is very debatable. Personnel managers, in particular, find that many employees will volunteer such information, but considerable discretion should be exercised in recording it. Anything likely to be damaging to an employee is better omitted, as if occasion arises when a record card has to be

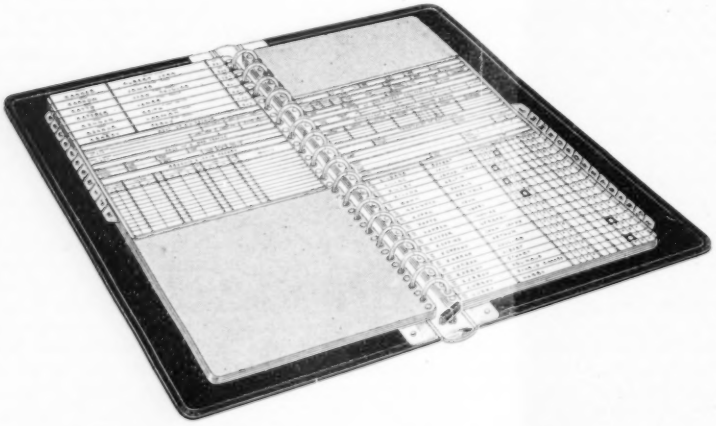
shown to the police or some similar authority, or if the card should accidentally fall into the hands of some undesirable person, the company may find itself faced with a libel action.

Basis of the personal record is the *application for employment form* which is completed by the would-be employee and is filed when the information required for the personal record has been extracted. Relevant details are also sent to the wages department, time office, medical department and foreman or head of the department to which the employee has been assigned. Where deductions from wages are to be made, these must be clearly stated on the application form, and the employee's signature obtained.

Before an employee is engaged, however, the personnel department, or the executive responsible for hiring staff, must know what labour is needed. *A labour requisition form* is generally used for this purpose, which states the number of employees required, their type, rate of pay, whether work is temporary or permanent, and what qualifications are required. Where a system of job analysis is used this information will be provided by the *job specification card*. The departmental executive may also suggest the names of ex-employees available for re-engagement or relatives of employees desiring to join the firm. Here again, practice differs widely; some firms like their employees to be recommended, while others bar relatives of existing employees.

The number of employees required is entered in a *day book* or *register* and as each vacancy is filled the starting date is entered up. This *day book* shows immediately how many employees there are in each department, the total pay-roll, and the number of vacancies waiting to be filled. From this information a weekly, monthly or quarterly report can be made out showing the total labour force and the number of engagements and terminations over a specified period, i.e., the labour turnover.

The value of such records is that they provide a guide to the productive capacity of the organisation, show where there is a surplus or deficiency of certain types of labour and the possibilities of re-allocation on expansion. They show whether employees are being properly selected and placed, whether supervision is good or bad, and provide a measuring rod to test the morale of the organisation and the effectiveness of the company's personnel policy.



Useful for the small firm or scattered units—a loose-leaf ring binder. Holds 300 to 500 record forms, can be "signalled" and is easily carried.

When an employee is transferred or terminates his employment a *transfer or termination notice is sent* by the department concerned to the personnel office stating the name, clock number, present job of the employee, his new department and new wage rate. If the employee leaves, the reason is stated. Most forms also include a note stating whether the employee is suitable for re-engagement. Both transfers and terminations are notified to the wages and medical departments also. In some firms, notice of termination is completed by the employee and sent direct to the personnel department. The employee is then interviewed, and the departmental head consulted, before termination is agreed.

Absenteeism and lateness are recorded daily by each department, or by the time office, and copies of the return are sent to the personnel and wages departments showing the amount of time lost and the reasons. This information is also entered on the personal record, and where absence or lateness is due to illness or accident, details are sent to the medical department. Some firms prefer to maintain a separate card index for absentee and lateness records. A weekly return is compiled from these records showing the time lost in each department from various causes, and indicating where corrective action needs to be taken.

Checking Hazards

Medical records are usually kept by the medical department and contain —in addition to name, address, age, clock number, department, and type of work engaged upon—the name and address of employee's own doctor; past medical history; family history; result of firm's medical examination where given, and record of treatments at firm's surgery. As already stated, in some firms extracts from this record are entered on the personal record. Medical records not only show the fitness or otherwise of the individual employee for his job, but may reveal the need for improved working conditions or hazards to health inherent in the manufacturing processes.

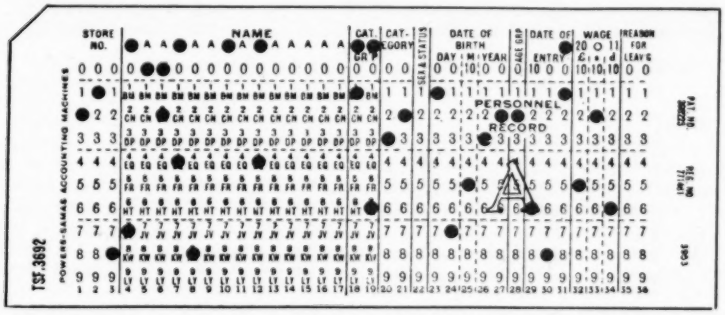
Accident records are kept by the safety officer, or personnel officer, or other executive responsible for accident prevention. When an accident occurs, the head of the department concerned sends an *accident report* form to the medical department, safety and/or personnel department. This form states the nature and cause of the injury and the time of the accident. This information is entered on the employee's personal and medical records, and the accident report form filed. The medical department will also enter the appropriate details in the *accident register* and *treatment book*. From this information the accident severity and frequency rates are calculated, and

"black spots" are soon shown up. A run of accidents in a particular department, or an unusually high accident rate for an individual employee, indicates the need for an investigation of machine guards, layout, etc., or the possibility of bad supervision; or in the latter case, of an examination of the employee's fitness for his job. The saving in production time, money, and human suffering resulting from eliminating such faults is too obvious to need comment.

Having decided what information is required, the question arises as to

A similar system is used by **company B (instrument manufacturers—about 11,000 employees).** An interesting point about this system is that personnel records are divided into sections of 500 and one person is responsible for each section. Emphasis is on accuracy, and all records are "audited."

Company C (radio manufacturers—about 550 employees).—This firm uses the same type of installation with a signalling system to denote skilled or semi-skilled workers, old-age pensioners, apprentices, part-time workers, juveniles, and disabled



For the supply of detailed information, the punched card system has much to recommend it. (Photograph credits: Cover and page 145, Remington Rand Ltd.; loose-leaf binder, Twinlock Ltd.; punched card, Powers-Samas.)

the best method of recording it. This again will depend upon the size and type of organisation. Probably the most popular in use are the visible edge record systems, as they are suitable for both large and small organisations, and once established can be extended indefinitely. To take some practical examples:

Company A (paper mills—about 4,500 employees)—Personnel records are maintained by each mill and are duplicated at headquarters. The visible edge record card is used throughout for the *personal record*, supplemented by a *personal file* which contains all internal memos. and correspondence concerned with the individual employee. The personal record carries a coloured insert showing to which mill the employee belongs, and coloured signals indicate sex, age group, disabled persons, apprentices, employees on national service, department etc. (Many firms adopt the colour code "blue for a boy and pink for a girl," while a different coloured card is used to indicate works staff, office staff, etc.)

Medical records are maintained by the medical department on the same basis.

persons.

The information which can be recorded by "signalling" is almost endless. For example, in addition to the items mentioned above, some firms use signals to indicate absentees, employees awaiting transfer or promotion, employees due for Z training, the year of apprenticeship, special qualifications such as languages, district in which the employee lives, issue of overalls, etc. But care should be taken that "signalling" does not become confused and so defeat the purpose for which it was intended—to give specific information at a glance.

A useful device for the small firm, or for scattered units such as building sites, is the loose-leaf ring binder. This works on a similar principle to the visible edge record card, and can be "signalled" in the same way. A leather binder will hold 300 or 500 personal record forms, and can be transported as easily as a brief case.

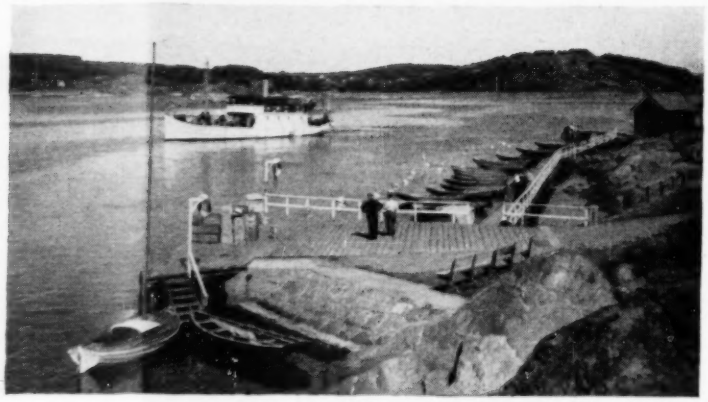
For the large-scale organisation, requiring detailed statistical information, the punched-card system is to be recommended for both speed and accuracy. **Company D (chain stores—about 20,000 employees)** use this system for analysing turnover, for absentee and accident reports, for a birthday list giving annual increments due, and for an analysis of the basic wage by age, occupation, etc. The initial installation is somewhat costly, however, and is not an economic proposition for the smaller firm unless the equipment is being used extensively throughout the whole organisation. Equipment can be hired and is useful for the "spot check" such as that undertaken by a woodworking factory which wanted to make a special health survey.

The installations mentioned above are standard products, although in most cases designed to meet the individual requirements of the companies concerned. But home-made devices can be equally effective. **Company E (printers—about 50 employees)** and **company F (engineers—about 200 employees)** both use an ordinary manilla folder with the details of the personal record printed on the inside. All memos., correspondence, etc., are kept in this folder. Coloured guide tabs can be used for classification purposes. **Company G (food manufacturers—about 6,000 employees)** have a large proportion of seasonal labour, and have economised on the wastage of records by using a cellophane envelope into which is put the application for employment form. This constitutes the personal record and when the employee leaves the form is removed and put into a "dead" file; the envelope can be used again and again.

Basic Principles

Whatever the type and size of organisation, or the method used, certain basic principles about keeping records should be borne in mind. It is better to have simple, accurate records than elaborate, inaccurate ones so complicated that nobody can interpret them. Find out what management wants to know; it is a waste of time and money to keep records nobody needs. Plan your system for expansion, but do not get over-enthusiastic about "signalling" and so create confusion. Cut out "slips" and "chits." Keep record cards and forms down to a minimum. Personal and medical records should be regarded as confidential and kept in locked files. Finally, having established your information so that it can be analysed quickly and accurately—use it.

They Gave Their Workers a Holiday Island



Landing stage of Lilla Brattön, the S.K.F. Co. holiday island, which is managed by a committee of five elected by the workers.

By J. R. ASHTON

As part of an extensive welfare scheme, what amount to free annual holidays for workers and their families are provided by this Swedish management. This helps to explain why the firm have a rising production rate, small labour turnover and a low accident rate.

LILLA BRATTÖN symbolises what can be achieved by trust on the part of management and responsibility on the part of the workers. Results cannot be calculated entirely in production units, but in the reminiscences of those who have spent happy hours on this holiday island.

It has been the policy of the S. K. F. Co., founded by Dr. Sven Winquist in 1907, to maintain good labour relations with its employees. When the present large-scale organisation first started on the production of the double-row self-aligning ball bearing—the invention of Dr. Winquist—it had only sixteen employees but it resolved to give them better working conditions and hours than were then prevailing.

This constant resolve of the founder was emphasised once more when, on attaining his fiftieth birthday in 1926, he and his wife presented an island, formerly their summer home, to the S. K. F. employees. This island stands in Hakefjord, a few miles north of Gothenburg, and covers an area of nearly 34 acres. Actually the title was conveyed to both clerical and manual workers, but in 1928 the clerical workers waived their title to the property in exchange for a sum of money placed at the disposal of the staff association. Henceforth, the island belonged solely to the manual workers.

The workers agreed to a weekly levy of 1d. to provide an annual income of £600. Of course, this was insufficient to cover expenses, apart from the question of development, so the board of directors undertook to provide an annual sum of £3,000. This fine gesture ensured that the scheme for cheap holidays for their workers should not fail for lack of capital. Eventually the weekly levy was abandoned and it was agreed by the workers that 25 per cent of the weekly sum of 1 krona (1s. 4½d.) paid into a workers' fund should be used towards meeting the expenses of maintaining Lilla Brattön. The board's interest in the development of the island did not wane, however, and over a period they made grants when needed. Dr. Winquist also personally donated further sums. It must be remembered that the board has no direct control over the expenditure of the money. The sole authority for the island's management is vested in a committee of five members elected by the workers at an annual meeting.

Each bungalow accommodates two families, and the holiday costs the worker about 15s. a year.

Housing the Families

The provision of accommodation has taken a long time. Nine families only were housed in 1928, but today there are thirty small huts for two persons, thirty-three bungalows with accommodation for two families and several other types of temporary shelter. Each bungalow, built for two families, has a common veranda. The large room within is equipped with two or four folding beds with mattresses and blankets—sheets must be brought by the visitor. The remaining furniture consists of a table, a chest-of-drawers and chairs. An alcove off the room contains a primus stove, crockery and buckets. Water is not laid on, but can be obtained from pumps near at hand. Each tenant is responsible for keeping his rooms clean, but there is no official inspection. Any worker's family may stay, free of charge, for a maximum of three weeks in any one year. The individual worker's contribution towards the maintenance cost is about 15s. a year.

Prior to 1951, all visitors had to cook their own meals, but for many years it was realised that this did

not give "mother" much of a holiday. It was decided to build a communal restaurant. A fine, modern self-service restaurant has been built overlooking the little harbour where the ferries arrive. When the idea of a restaurant was first mooted, it was given tangible encouragement by the board of S. K. F., who offered £15,000 towards the building costs. Rising costs nearly defeated the project, but a further grant-in-aid of £10,000 from the board ensured the completion of the building.

Other Amenities

Many other amenities are gradually being provided, such as the present electrification of the island. A swimming pool has been constructed and an instructor gives free tuition to young and old. An open-air dance floor, swings and roundabouts, a football field—for Swedes play the game in summer—and twenty rowing boats are at the disposal of those who wish to use them. In case of wet weather there is an assembly-house and a library.

What are the beneficial results of this great experiment? Are the workers happier? Do they tend to remain in their employment instead of moving from job to job? It is not easy to give a precise answer as to how far the Lilla Brattön experiment has induced workers to remain with the S. K. F. Lilla Brattön must be linked with the many other welfare facilities provided by the S. K. F. Perhaps these facts will suggest the answer. There has not been a strike of workers because of an internal dispute since 1908. The S. K. F. has the lowest accident rate in Sweden—January/May, 1952, 1.9 per 100 workers per annum. It is estimated that about 50 per cent of the workers have over 10 years' service. Production has substantially increased, particularly since 1945, even with a shortage of manpower.

Ideas In Industry

INSTEAD of publishing their own employee magazine, Blackstone & Co. Ltd., Stamford, take a whole page of their local newspaper for this purpose. In this way not only their own employees, but anyone who may be interested, can read all about the firm and its activities.

Wives and families of 22,000 Derbyshire miners have received a booklet on the prevention of accidents in the pit. It is hoped that they will encourage the men to read the booklet.

Modern Cleaning Equipment—2

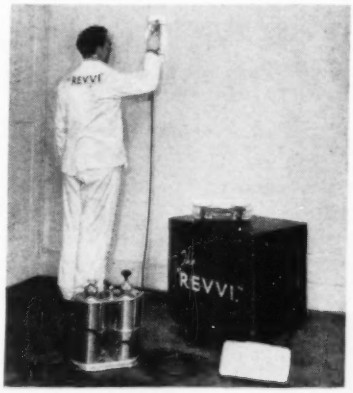
These Machines Cut Wall and Ceiling Cleaning Costs

By JOHN SPENCE

EXPENDITURE on the cleaning of walls and ceilings of factories and offices can be considerable. Besides the cost of labour and materials, there is the disorganisation and loss of production resulting from the removal of equipment to make way for the cleaners. Yet walls and ceilings must be cleaned every fourteen months, if the requirements of the Factories Act, 1937, are to be met.

Fortunately, walls and ceilings can be washed quite cheaply and with the minimum of disorganisation by means of a washing machine like the one illustrated here.

The cylinders of the machine are filled with clear water and a water/detergent solution respectively, and



This machine washes walls and ceilings cheaply and the factory's work can go on while it is in use. A vacuum cleaner in operation is illustrated on page 163.

both water and solution are kept under pressure by a few strokes of a manually operated air pump. A few minutes' pumping is sufficient to last throughout the day's operations.

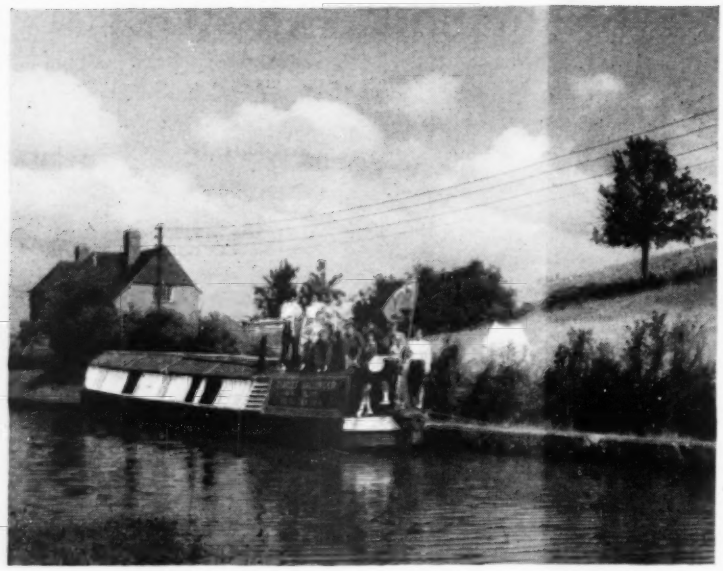
The cleaning solution and clear water are delivered alternately through flexible rubber pipes to flat-surfaced cleaning trowels, on which are mounted absorbent pads. The solution and water are fed to the pads through a release valve on the handle of the pad-holder or trowel. The detergent solution removes the dirt and cleans the surface, which is then rinsed by the clear water. Finally, the area is wiped over with a dry towel.

This type of machine costs only £50 and, being silent and not requiring very much floor space, it does not distract the attention of persons working near it. The water and cleaning solutions do not drip on to floors, machines or desks, so dust sheets are not required. The detergent recommended by the makers does not, of course, damage a painted surface. A saving of at least one half of the normal labour costs is effected.

In one firm known to the writer the cleaning trowels have been mounted on light extension tubes, and the operator has thus been enabled to clean areas which are beyond his reach without the use of scaffolding. If scaffolding is required the types described in the earlier article on window cleaning (PERSONNEL MANAGEMENT, WELFARE & INDUSTRIAL EQUIPMENT, August, 1952, p. 59) should be employed. Of particular importance is the hydraulic platform which can be wheeled through quite narrow doorways.

In between periodic washing, cleaning of walls with the aid of a vacuum cleaner is advisable. For these machines there is a wide variety of tools which can be fitted on to extension tubes, e.g., curved brushes for cleaning the tops of pipes, and angle nozzles for the tops of window frames.

Cleaners frequently stand on chairs so as to reach a little higher up the walls. The results are all too often a fall on to machine or desk, and serious injury. They can work more quickly and safely if they are provided with a fixed, stepped platform with two wheels on one end and a long handle. The cleaner can support himself with the handle when he is working off the platform and use it for pushing the platform from room to room.



AT SCHOOL—ON A NARROW-BOAT

Girls from Cadbury Bros. Ltd. enjoy lessons in this floating school. The narrow-boat provides accommodation for meals and lectures; tents are carried for sleeping in. The girls study local history and geography and the trip includes visits to factories. The company use inland waterways for their own inter-factory transport, and their boys have benefited from these trips for some years, but girls have participated this summer for the first time.

Competition Reduces Accidents

TUBE Investments Ltd. believe in competition as a valuable incentive to improved performance, but in devising a safety competition they were up against the differences in size, layout and degree of risk in the various factories in the group. They solved this problem, and removed any unfairness in competition, by organising a scheme whereby each factory strives to beat its own past record.

The award goes to the factory showing the greatest percentage improvement.

Factories are divided into two divisions according to the number of employees, the dividing line being 600. Factories employing less than 150 are outside the scheme. The reason for this division is the period of the competition, which is six months. In such a short time a small factory will generally have more chance than a large one of reaching a record. (In practice, over the past eight years, this does not appear to have made much difference. Factories in the first division vary from 600 to 3,000, with an average of 1,300, but winners have been equally divided between those above and below the average.) Only accidents which are reportable to the Factory Inspector are counted.

The datum period for each six months' competition is the two years immediately previous expressed in terms of the number of reportable accidents per 100 employees. The six month's performance is calculated as a percentage of the six months' average of that standard.

One defect had to be rectified. It was possible under this scheme for a factory to make steady progress yet never be a winner, so a second award was introduced for continuous progress over the past four years. The factory with the greatest average percentage improvement over these four years is the winner. The writer suggests that this form of competition could be more widely used and organised on a district basis.

(Condensed from *Industrial Welfare*, 7/8/52.)

The Soul of Wit

TO ensure that the two-and-a-half million dollars they spend on correspondence each year is used to the best advantage, Prudential Insurance Co. of America have developed a training course for employees in letter writing. A test check shows that it has improved writing techniques.

The course, which lasts for three weeks, includes five two-hour lectures, films, and practice sessions. Main emphasis of the course is on modern English usage, and the elimination of such outmoded phrases as "please be advised," "we beg to remain," and "with reference to." Use of high-sounding words is also discouraged. Short, simple sentences are advocated. Employees are therefore taught to write sentences averaging seventeen words, 150 syllables per 100 words, and to make personal references only about six times per 100 words.

The method of constructing a letter is described as "the star, chain and hook" method. The "star" is the attention-getting statement at the beginning of a letter, generally designed to appeal to the reader's interests. The "chain" is the orderly build-up of arguments which lead logically to the conclusion, i.e., the "hook," which is the matter of primary interest to the writer. The course also covers instruction in the use of various types of dictating equipment.

(Condensed from *Management Review*, 7/52.)

Wheelchair Workers

FIFTY war veterans are successfully running their own factory from wheelchairs. The factory was organised, financed and staffed by men paralysed from the waist down. They handle such operations as assembly, soldering, testing, running punch-presses and machine tools, and do their work well enough to compete fully with other sub-contractors in the market. The factory is specially designed for wheelchair workers: aisles and doors are extra wide; ramps are substituted for steps; workbenches are high enough to accommodate arms of chairs; machines are controlled by pressure of an elbow against specially-built levers. Slogan of the Paraplegic's Manufacturing Co. Inc., Franklin Park, Ill., is: "Not sympathy—but opportunity."

(Condensed from *Factory Management and Maintenance*, 6/52.)

Training Understudies

EVERY member of management should have an understudy or, preferably, several understudies. Both the company and the individual members of management benefit.

The company is provided with a pool of trained managers to draw upon for

replacements or expansion; overall efficiency of the organisation is increased; loyalty is developed and teamwork improved; continuity of company policy and services is assured; hidden talents are developed and new ideas encouraged.

From the individual's point of view, work will go more smoothly when he has to be away from the job; he can be relieved of detailed work, and left more time for planning; he can more readily accept promotion himself knowing that someone is trained to take his place; he broadens his own outlook and experience by training others.

Understudies must be trained to assume *all* the responsibilities of their superiors. Methods of training depend upon local circumstances; but by example, consultation, sharing knowledge, delegating responsibility, and allowing the understudy to handle situations himself, much can be done to fit him for the job. In this way, not only will he gain confidence in his own ability, but he will be able to win the confidence of others—an essential factor in successful leadership.

(Condensed from *Personnel*, 3/52.)

Staff School

THE staff school of Frederick Smith and Co., Wire Manufacturers, Ltd., of Halifax, is unique. It deliberately avoids all claim to give comprehensive technical training. Employees are encouraged to obtain technical training, but the formal education involved is obtained outside the firm. The school was conceived as an integral part of the administration, and has successfully supplanted the formal machinery of joint consultation.

First contact of new entrants with the school is through the induction course, which includes talks on the organisation of the firm, its products, the health and welfare arrangements, as well as a tour of the factory. Following this course, new entrants receive job instruction on T.W.I. lines. Management trainees and newly-appointed staff take the normal induction course, followed by a course on the theory of wire manufacture, which is held concurrently with practical training, and a course on the principles of management as applied to the Frederick Smith organisation. Courses are rounded off by visits to other firms related to the industry.

The school is also a tool of management. Any suggestions for changes in methods, etc., are considered at a series of *ad hoc* meetings between managers and key workers of all departments affected. After a decision is arrived at, detailed instructions regarding the new method are written down and copies sent to staffs of all the departments concerned. In most cases, changes are initiated by management, but provision is made for such initiative to come from any member of the staff. Staff school members wishing to make suggestions may submit them verbally or in writing to the head of the department in which they work. Such proposals are then considered at meetings of divisional managers and the heads of the departments concerned. The fundamental concept is that change is continuous, therefore any change introduced will finally become obsolete. All changes are reviewed after they have been in operation for one year. For this purpose refresher classes are held, and are attended by the staffs of the departments concerned. These classes go through each proposal clause by clause and may accept it or suggest modifications to meet new circumstances.

(Condensed from *Business*, 8/52.)

ON HOLIDAY—BY PLANE

Order of the day for directors and staff of A. Cochrane and Sons (Newmilns) Ltd., on the occasion of their annual outing, was "destination Belfast." After exploring that city, the party made a tour of Prestwick airport on the return journey.

Ideas & News from House Magazines

From Mansion To Lab.

A 200-year-old country mansion has been converted into research laboratories by Monsanto Chemicals Ltd. In order to preserve the amenities of the house, which stands in twenty-one acres of grounds, laboratories are mainly confined to outbuildings. The house itself is being used for administration, reception, conferences, exhibitions and staff catering. **(The Autoclave.)**

4,000 See Sports Day

Over 4,000 visitors attended the first sports day put on by the Thorncliffe Athletic and Cycling Club on their new sports ground at Mortomley. An ambitious programme of forty-two events was well supported and there were many excellent performances. **(Thorncliffe News.)**

Record Service

First long-service medal was awarded to an employee at W. P. Butterfield Ltd., in 1908. Present scheme dates from 1930, and since that date 395 awards have been made to employees with 10 years' service, 146 to those with 20 years' service, forty-seven to those with 30 years. Over 50 per cent of the present employees have served with the firm for over 10 years. **(News and Views.)**

Crane Driving

The fourteenth training course for crane drivers has been completed by employees of Steel, Peech and Tozer. A series of talks is given on the first day dealing with types of cranes, slinging material, lubrication, safety regulations, and electrical equipment. The rest of the fortnight is spent in practical training in various departments. **(Phoenix Gazette.)**

Training Review

A complete industrial training system is provided by companies in the Unilever group. Training is designed to be progressive throughout the working life, and starts by introducing the young beginner to his new surroundings. The system provides apprenticeship training, on-the-job training for operatives, T.W.I. courses for supervisors and other grades (including workers' representatives on joint consultative committees), and residential courses for managers at a London training centre.

Each associated company arranges its own training programme, but may share some centralised facilities, such as those provided by the residential centre. **(Progress.)**

Welding lenses protect the eye from dazzle and the injury or discomfort which can be caused by infra-red or ultra-violet radiation. All welding lenses should conform to B.S.689 : 1947. *(Photo by courtesy of Lincoln Electric Ltd.)*

A Nine-Point Plan For Protecting Employees' Eyes

By W. M. HALLIDAY, *Industrial Consultant and for many years on the Safety and Welfare Council of J. Parkinson & Sons, Shipley*

Most of the 100,000 eye accidents which occur in British industry each year are avoidable, says the author, who has had long experience of accident prevention in various engineering works. His suggested plan for eye protection is simple but thorough. Without some such preventive measures, he declares, no factory safety scheme can be considered really effective.

NORMALLY, from 80 to 85 per cent of the working activity of the average individual engaged upon workshop or factory operations is entirely dependent upon the faculty and quality of vision. It has also been claimed by industrial psychologists that the acquisition of knowledge, manipulative skill, and manual dexterity of hand workers is dependent upon the quality of vision to about the same extent.

For these reasons it will not be difficult to appreciate why almost 15 per cent of all accidents occurring in factories and workshops are due to defective vision, nor why 60 to 70 per cent of persistent headaches suffered by workers arise expressly from excessive and prolonged eye strain.

In industry eye injuries total well over 100,000 per year, and about 6 per cent of these are extremely serious involving the loss of one eye, or both; the scale of eye injuries ensuing from industrial accidents and necessitating absence from work for more than three days has been estimated at almost 5 per 1,000 workers.

Competent authorities estimate that about 80 per cent of these eye injuries and all their attendant losses in man-hours, material damage, pain and suffering, etc., are avoidable.

In a recent investigation into the visual efficiency of the workers in one large factory it was found that about 66 per cent of the 2,000 operatives had defective vision, whilst 1.3 per cent were blind in one eye. In another survey conducted in a large industrial firm only 22 per cent of the operatives had correct vision; 38 per cent were astigmatical, 28 per cent were hyperopic, 7 per cent were myopic, and nearly 5½ per cent were colour blind.

The ill-effects of primary faulty vision may be greatly aggravated by the onset of other physical or mental disturbances which are often associated with it. These secondary causes and their effects will in turn involve an increased disposition towards bad judgment, lack of care and attention, accidents and personal injury. Some of the commonest of these secondary conditions are prolonged eyestrain; persistent headaches; nervousness; timidity; greater tendency to be affected by distractions.

In seeking to ascertain the effects produced by defective vision and how these may be overcome by effective safeguarding measures, it is essential to bear in mind that the human eye is designed expressly for seeing in strong sunlight or daylight, to operate out of doors, and for sighting over appreciable distances.

Most workers in factory or workshop have to use their eyes continuously over long periods, generally in restricted indoor situations. These often call for sighting over extremely short distances. Frequently this will occur at night and by means of artificial light. In addition, the atmosphere of factories or works may be heavily laden with dust, minute metallic particles, or be excessively hot or contain deleterious fumes, gases and moisture. With numerous industrial operations the worker may also be called upon to work under such conditions with a close degree of visual concentration, attention and precision.

The following industrial processes are listed by the Factory Department as being the ones most liable to result in eye injuries:

1. Grinding, sawing, glazing, and polishing of metals; 2. Handling molten metal by pouring, ladling, its pressurised-injection into machines or dies, etc., and by mixing, stirring or refining of molten metal; 3. Riveting, caulking, scaling and cutting metals; 4 Chipping, filing, scraping and cutting metals; 5. Blacksmith

operations including hot forging, stamping, swaging, forming by manual means or hot-stamping presses, etc.; 6. Cutting, forming, pressing of metals by machines and manually actuated tools.

Imperfect vision, eyestrain, and greater proneness to accidents are, it seems, one of the inevitable consequences of our present form of industrial activity. The present menace to efficiency, good health and elimination of accidents and injuries will undoubtedly increase unless intelligent interest is demonstrated by management towards the protection and conservation of sound vision.

Accident prevention measures cannot be considered truly effective unless all eye accident risks are fully appreciated and tackled thoroughly.

Preventive measures of the following character will greatly assist, not only in aiding such better protection of eyes in industry, but in conserving sight generally:

1. Proper investigation should be conducted into all hazards of eye injury inherent in every operation in the works. The exact risks incurred, how these affect different workers, and their comparative accident-proneness when exposed to such risks, should be considered.

2. Adequate protective appliances, in the form of machine guards, eyeshades, goggles, etc., should then be designed. These should not only be efficient as protective devices, but should be *psychologically acceptable* to users. Workers sometimes refuse to wear such equipment because of a feeling of weakness or inferiority, or from fear of ridicule by other workers. Such prejudices can best be overcome by the continuous and effective education of all workers in the importance of conserving their sight.

3. All new entrants into the factory should undergo a properly designed sight test especially for fine precision work.

4. New methods of working and handling of metals, chemicals, materials, etc., can often be devised with the object of completely removing serious eye risks.

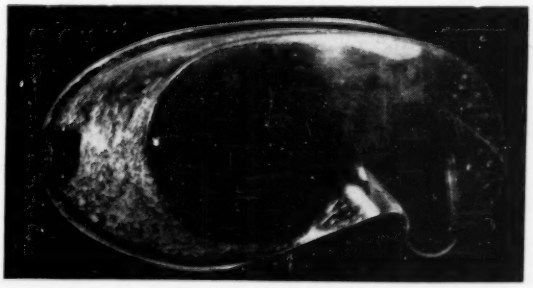
5. Apparently experienced workpeople can also be trained in the best ways and means of using and protecting their eyes on particularly hazardous jobs. This can be done by posters, discussion groups, and articles in the firm's house journal, when the dangers of neglect, carelessness or recklessness can be emphasised.

6. All protective devices should be designed so as to be comfortable when worn.

7. Means should be available for the worker to advise the higher management promptly of any risk which normally has not been foreseen by the safety organisation.

8. New workers must be instructed in the proper use of protective measures and equipment. All workers should clearly understand the need for, and value of, all safety rules and provisions, preferably being brought into consultation when such regulations, etc., are being developed.

9. It should also be clearly established that the management is responsible for safeguarding all machines and operations in the works. Worker responsibilities should similarly be clearly defined as covering the careful and intelligent use of all protective devices supplied, notification of unforeseen hazards on jobs, and full co-operation with management in promoting all accident prevention schemes and elimination of working risks.



These goggles saved a man's sight. A chemical vessel burst and sprayed him with acid. But none penetrated the goggles. *(Panorama photo.)*

New Circulars Put Industrial C.D. "In the Picture"

THE minimum age at which men can be enrolled in industrial and commercial Civil Defence units is thirty, except for the rescue section, where it is eighteen. Minimum age for women is eighteen. Certain reservists of the Armed Forces are also eligible, but new arrangements concerning reservists come into operation on October 1.

This information is contained in the first Civil Defence Industrial Circular, which was published on August 8 and is being distributed through the regional organisations of the Civil Defence Corps. Here are some more items from the circular which, with those that succeed it, should fill in the gaps—about which industrial C.D.Os. have complained—in the supply of Civil Defence news to industry and commerce:

Training. Revised syllabus for basic general training is given in an appendix, and that for green certificate instructors is explained. (Part-time instructors, after passing their training course, can earn up to 10s. 6d. per one-hour lesson to C.D. volunteers. Professionally qualified lecturers can be paid up to £1 11s. 6d. per lesson.) Details are given of the use of differential detector powder and war gas simulants in anti-gas training; of training equipment; and of training publications, film strips and films.

Insurance. Members and trainee-members of a Civil Defence unit are covered by the National Insurance (Industrial Injuries) Act, 1946, the circular states.

Section Training. "Although further study is necessary before comprehensive guidance on section training in industrial and commercial Civil Defence units can be given . . . the basic operational principles taught in the Civil Defence Corps will apply." The circular suggests that industrial and commercial C.D.Os. arrange for their section training instructors to attend courses organised for the local division of the Corps, with whom the industrial and commercial units would have to operate in close association.

EYE PROTECTION—*Continued.*

Speakers at Two Recent Conferences Emphasise

The Importance of Leadership

Never has leadership in industry been more difficult than it is today; never has it been more important. Here are the views of some of industry's leaders on this vital aspect of human relations.

NAPOLEON'S well-known words, "There are no bad regiments, only bad officers," were quoted by the Minister of Pensions, D. Heathcoat Amory, M.P., when he opened the twenty-second conference of the **Industrial Co-portnership Association.** *Leadership* was the key to good industrial relations, maintained Mr. Amory. We were living in an age of larger and more complicated organisation, jobs were becoming more specialised and repetitive, resulting in a lack of individual responsibility and general apathy. This made leadership both more difficult, and more important, than ever before. If the *right attitude* was present in industry, however, the machinery—joint consultation, profit-sharing, etc.—would work all right. The real value of co-partnership was that it was a tangible means of proving that management and workers were members of the same team.

This point was emphasised by other speakers. Speaking on "Sharing Profits and Sharing Problems," F. Holroyde described the scheme operated by the Solicitors' Law Stationery Society Ltd., and said that while it had lost some of its incentive value since the bonus had become more or less stabilised, the resulting mantenance of good employer/employee relations was its justification. He believed that if employees became "partners" they should be treated as such, consulted about the business, and given the status and security commonly afforded to real business partners.

A refreshing commentary on the same theme came from Major J. R. More-Molyneux, who has introduced co-partnership into agriculture. Although employing only about twenty people, the estate is a complex unit, including a mixed farm, market garden, forestry department, and retail milk round, as well as twelve farms and seventy cottages.

Informal consultation takes place every day between a farmer and his men, but Major More-Molyneux also believes in the value of formal joint consultation, and meetings of the heads of the various departments, together with two elected representatives of the workers, are held regularly every month and a general meeting of all employees every three months. Meetings are held in the workers' time, and are well attended. If you share your problems, you must share your profits, maintained Major More-Molyneux, and in his scheme workers receive 10 per cent of the gross profits. He has found that after 18 months this has yielded real dividends in greater co-operation, interest and efficiency.

Quoting from a paper which he had given in 1921, W. Wallace, chairman, Rowntree and Co. Ltd., said that the keystone of good labour relations was *justice*—justice between wage earners themselves and between wages and profits. Profit-sharing was less important as an incentive than as a means of removing a disincentive. Experience had confirmed this view, especially in the maintenance of harmonious relations in the years when there were no profits to share. Profit-sharing was a symbol of the right attitude to labour relations. But it was also necessary to provide good working conditions; wage rates sufficient to provide a reasonable level of subsistence; the opportunity to earn extra monetary rewards; pensions; sick pay; promotion by merit; union recognition; opportunities for the rank and file to participate in the life of the organisation.

Almost A Religion

How to make management more effective in its leadership was almost a religion in the United States, said William B. Barton manager of the labour relations department, U.S. Chamber of Commerce, at the "Human Relations in Industry" conference of the **Industrial Welfare Society.** Perhaps too much emphasis had been placed on the use of technology and mechanisation. Good management was above them in importance. As the U.S. had become a mass production country its managements had taken an ever more vigorous leadership in promoting human relations or good personnel practices.

Sir George Schuster was in no doubt about the duty of industrial leaders. The key problem in industry was—how to inculcate a new appreciation of work? There were thousands of people at work today who wanted to find something which gave meaning to their daily jobs. Happiness lay in good work well done, in conditions of liberty and in an atmosphere of comradeship. We were at the beginning of a social revolution one of the manifestations of which was a widespread desire to be more than a dependent wage-earner, fighting against forces one did not understand. The worker wanted to move from that position to one where he had some say in what was being done. How could he get the experience to fit him for the responsibility he wanted to assume? Management must recognise this groping desire on the part of the worker, realise his difficulties, and try to find means to help him.

The aim must be to create a co-operative community working for common purposes respected by all. Yet any idea that one could solve problems of human relations by arrangements prescribed from on top was bound to fail. Management had to find a way of combining leadership with partnership. Leadership and authority there must be, but the accent must be on *leading*. Sir George said he believed that management could give effect to these ideas by

1. Functional efficiency. No one should go on to a job which carries managerial responsibility unless he were qualified for it.

2. Spreading the creed that "work is service," and giving the employee a pride in his job, so that he did it to the best of his ability.

3. Recognising the necessity of a spiritual revival, for material incentives were not enough. Management had to try and solve this problem: How can we give our workpeople a faith and a cause to work for? Christians had both, said Sir George. "I do not believe we can guarantee the survival of our free form of society unless all men have them."

ENGINEERS AND THE OVERTIME BAN

AS we went to press, it was learned that the Confederation of Shipbuilding and Engineering Unions were to refrain from fixing a date for the banning of overtime and piecework throughout the industry on the understanding that talks were quickly resumed with the employers under the aegis of the Ministry of Labour. Engineering employers were to meet Ministry officials on September 18, followed by the Shipbuilders on September 23.

On September 15, thirty members of the confederation's executive met Sir Robert Gould, chief industrial commissioner to the Ministry, and discussed their claims for an extra £2 a week for engineers and a "substantial increase" for shipbuilders. The employers had rejected the engineers' claim. The executive of the confederation had decided to ban overtime and piecework as a protest against this rejection. More than half the two million workers in engineering and shipbuilding, and about 43 per cent in vehicle building, are on piece rates, and workers in these industries average about eight hours' overtime a week.

A move to submit the dispute to arbitration was defeated at a confederation meeting in York, but Sir Robert Gould was quick to invite the confederation's leaders to meet him.

After the meeting on September 15, Sir Robert issued an agreed statement which said that the results of the discussion would be reported to the Minister, Sir Walter Monckton. Urgent invitations would be issued to the employers asking them to discuss the matter "at a very early date" with officers of the Ministry. Separate invitations were extended to the engineering and shipbuilding employers.

Here is the rest of the month's wages news:

BANK EMPLOYEES—Scottish bank employees will benefit from a new wages agreement whereby all employees from January 1, 1953, will receive a 30 per cent bonus, 20 per cent of which will be consolidated in salary and the remainder paid as a cash bonus.

CINEMA WORKERS—National Association of Theatrical and Kine Employees have submitted a claim on behalf of 86,000 projectionists, chief operators, maintenance men and usherettes for wage increases varying from 20s. to 30s. a week for technicians and other male staff and 25s. for women; double-time for Sundays; and a 44-hr. week.

FLAX AND HEMP WORKERS—The Flax and Hemp Wages Council (Great Britain) have advised the Minister of Labour and National Service that they propose an increase of 5 per cent in the weekly rates of statutory minimum pay.

FURNITURE TRADE WORKERS—Agreement has been reached between the two sides of the British Furniture Trades Joint Council on a new cost-of-living sliding scale arrangement to meet present economic circumstances in the industry.

PIT OVERMEN—Wage increases have been granted to colliery overmen under a new national wages agreement.

SHOP WORKERS—Wage increases ranging from 4s. 6d. to 10s. a week on minimum rates have now been agreed for workers in the fur; laundry; boot and shoe repairing; retail newsagency, tobacco and confectionery; retail food; retail furnishing; sugar confectionery and food preserving; drapery and footwear; bookselling and stationery; and hairdressing trades. These are the original proposals submitted by wages councils which the Minister of Labour referred back.

Unemployment Up Again

THE total of 403,600 registered unemployed on August 11 was 10,100 more than the July figure. But there were 15,600 fewer unemployed in textiles. Unemployment was again lowest in the Midlands and highest in the North-West.

Employment in the manufacturing industries decreased by 36,000 during July, including 15,000 in engineering, metal goods and precision instruments (although aircraft manufacture showed a further rise of 1,000), 10,000 in "other manufacturing" groups, and 5,000 in textiles. There were increases of 7,000 in the distributive trades, and 9,000 in the professional, financial and miscellaneous services group; this was mainly owing to seasonal increases in the catering trade.

SAFETY SHOES TEST

To show the strength of steel-capped shoes, George Denton (chairman, B.S.I. committee on safety footwear) allowed this bus wheel—weight nearly two tons—to pass over his toes. The shoe lost its shine, but not its shape.

More Pay For 324,000

CHANGES in wage rates reported during July resulted in an aggregate increase of about £73,000 in the weekly wages of about 324,000 workers, according to the August issue of the *Ministry of Labour Gazette*. Industries mainly affected were general printing, textile bleaching, dyeing, printing and finishing, and carpet manufacture.

Industrial Disputes

THE Prime Minister met a deputation from the general council of the T.U.C. last month to discuss certain aspects of the dispute between D. C. Thomson and Co. Ltd., and certain printing unions, which the T.U.C. regarded as a threat to trade union principles of freedom of association and the right to organise. Mr. Churchill told union leaders that the government had been given an assurance by the firm that it would not require employees to sign an agreement not to belong to a trade union.

The dispute, which has lasted four-and-a-half months, arose over the dismissal of a machine-room operator who had become a member of the National Society of Operative Printers and Assistants, although the firm banned union labour.

Members of the National Union of Vehicle Builders at the Birmingham works of the Austin Motor Co. last month decided to ban overtime in protest against the company's decision to dismiss 800 employees on grounds of redundancy. Also in dispute was the dismissal of a leading shop steward.

More than a thousand members of the same union, employed at Park Royal Vehicles Ltd., rejected the recommendation of a committee of investigation, called by the Minister of Labour, that they should return to work immediately. The strike began on July 2, over the temporary suspension of seventy-eight workers who were put out of work by a strike of twenty-two men involved in a dispute over a piecework bonus rate. The investigating committee found that the employers and the Joint Wages Board of Employers for the Vehicle Building

industry had acted constitutionally, but the unions had contravened the provisions for avoidance of disputes laid down in the national agreement by withdrawing their labour while negotiations were in progress. The committee also criticised the handling of the dispute by union officials.

Unions were recommended to accept the management's offer that all workers should resume immediately, except the seventy-eight suspended who should resume not more than 48 hr. later, when negotiations on the disputed bonus price would be continued.

Work was resumed at the Fairey Aviation Co.'s factory at Stockport last month after a strike which lasted ten weeks. The strike started because four inspectors refused to join a trade union, and two shop stewards called a meeting during working hours without permission. The firm agreed to re-engage the two men; the question of non-union members was to be submitted to the usual procedure for the settlement of disputes.

The strike at the Grand Hotel, Birmingham, over the dismissal of six waiters and two waitresses was also settled and all strikers were reinstated.

It Was Worth While

DURING the past three-and-a-half years, sixty-six teams have visited the United States under the auspices of the Anglo-American Council on Productivity. In their final report, the council state that they are in no doubt that the work has been justified, although the full harvest of the project has still to be gathered.

Examining the practical results in industry, the council state that in steel founding productivity has been increased by 15 per cent, and since 1949 it has gone up as much as 30 per cent in some foundries. In ironfounding increases were sometimes more than 50 per cent. In the internal combustion engine industry many companies report increases varying up to 50 per cent. By changes in layout and handling methods output has been increased by 30 per cent in some firms. But much still remains to be done. Although the joint Anglo-American organisation has finished, the work will be continued by a British Productivity Council which is to be established shortly.

Married Women Workers

ESTIMATED number of married women in employment in Great Britain in May, 1951, was about 3,070,000, or about 43 per cent of all women workers. There were considerable differences between the proportions of married women in different age groups:

Between 40 and 44 years of age, 66 per cent were married; between 35 and 39, 65 per cent; and between 30 and 34, and 45 and 49, 62 per cent. On the other hand, among those between 20 and 25 years of age, the proportion of married women was only about 30 per cent. This is mainly due to the fact that many young women retire upon marriage, and many are unable to work while their families are young, but as soon as children reach school age large numbers of women return to employment.

The total number of married women in employment was 200,000 more than in 1950. This increase was spread over practically every age group, and was especially noticeable in the 40 to 50 group, where there was a rise of 80,000.

The number of married women workers also varied from district to district. The highest proportion was in the Midlands, where one out of every two women workers was married, and the lowest in Wales and Scotland (32 per cent). The largest number of married women were working in the "non-metalliferous mining products" group (56 per cent); this was mainly due to the high proportion of 62 per cent in the china and earthenware industry. The next highest percentage was in the textile industries (51), and in engineering, vehicles and metal goods group (nearly 50 per cent). It was low in the distributive trades, where out of a total of over 1,000,000 women workers, only 38 per cent were married.

T.U.C. Temper the Wind

BY a majority of more than six million votes, delegates to the Trades Union Congress held at Margate last month approved the general council's statement recommending moderation in wage claims. Among the supporters were the engineering unions who were seeking a wage increase of £2 a week, and the miners' unions with a pay claim pending for an increase of 30s. a week.

Mr. Lincoln Evans, who introduced the council's statement, said that it did not ask unions to adopt a policy of wage restraint as operated from 1948 to 1950. But he warned delegates that substantial wage increases would raise prices and that higher export prices would cause unemployment. Broadly speaking, "we all pay for each other's wage increases." He added, however, that employers must not be allowed to stultify negotiations by refusing to consider justified claims. Wages of many were too low and no attempt to stabilise them at that level could be accepted.

Some Confusion

A composite resolution criticising the Government's economic policy and stating that, until adequate price controls and food subsidies had been restored the general council should reject attempts to restrict justifiable wage increases, was carried by a majority of over seven-and-a-half million votes. A second composite resolution, which asked for a rejection of the Government's policy of restraint or moderation, was defeated by nearly five million votes, but it was obvious that some unions supported both resolutions. Opinion is somewhat confused as to what the T.U.C. is now committed to, but it seems certain that the constituent unions will continue to press for what are regarded as "justifiable" wage claims.

Other subjects discussed by Congress included a resolution moved by the Union of Shop, Distributive and Allied Workers asking the general council to make representations to the Government to carry out the recommendations of the Gowers Committee on hours of closing shops, and on health, welfare and safety in non-industrial establishments. This was carried unanimously.

The Guild of Insurance Officials' resolution supporting efforts to establish joint consultation in industries where employers declined this means of settling problems was also carried. But an amendment suggesting that joint consultation be made compulsory was lost.

Equal Pay

Unanimous support was also expressed for a resolution from the Union of Post Office Workers demanding the application of the principle of "equal pay" throughout the field of Government employment.

Congress supported a resolution submitted by British Actors' Equity Association calling on the Government to prohibit the employment of children in theatrical troupes while continuing to allow the licensing of children to play individual parts in the theatre and in radio and television productions, subject to strict safeguards.

Mr. Deakin, in his presidential address, denied the right of an employer to make non-unionism a condition of employment, and said that the T.U.C. would continue to assert the right of trade unionists to decide whether they would work with non-unionists. At a private session, Congress decided to request a meeting with the Prime Minister and Minister of Labour to discuss the dispute on this point which had arisen between D. C. Thomson and Co. Ltd., and certain printing unions.

The retail price index fell one point in August—from 138 at July 15 to 137.

More About Diets

By WINEFRED YEOMANS

Catering Manager, Daily Mirror Newspapers Ltd.

How the catering department can further the doctor's treatment—that is Mrs. Yeomans' theme. Last month she dealt with diets suitable for sufferers from digestive disorders. Here she offers some useful hints on the feeding of women workers during pregnancy, of anæmics and diabetics, and of those who are afflicted with boils or catarrh.

IF the patient—or, we hope, the ex-patient—has received instructions as to how he may recuperate himself and gain a healthy attitude towards his food, he will be able to co-operate with his canteen at meal times. It is the desire of the caterer that his "diets" will, in every way possible, give their meals every chance to refresh and nourish them so that in a short while they may be "diets" no longer, but satisfied customers making wise choice from the menus within the scope of a good canteen service.

Pregnant Women. Although a number of pregnant women go through their time—and work up to the sixth to eighth month—without attracting any special attention to their dietary needs, the good welfare department make it their business to see that these women receive proper attention and look after themselves correctly. The canteen offers such facilities and those little extra considerations as come within its sphere. These include milk, fresh fruit, wholemeal bread and butter, plenty of *freshly* cooked vegetables, raw salads, the woman's full ration of meat or when this is unacceptable, a choice of some other first-class protein, nicely prepared and served.

These women are not "diets" in the full meaning of the word, but there may be a few days or weeks when the No. 1 or No. 2 diet (for convalescent ulcer cases—see P.M., W and I.E., September, 1952, p. 115) may be prescribed or chosen as a natural corrective. Some women know instinctively what their bodies require and would select from the foodstuffs available just the right items, without attracting notice.

There are other pregnant women, especially "firsts," who need a little extra attention or motherly interest, and there will be members of the canteen staff who know how to give this kindly and unobtrusively. Whims and fancies in food are not so prevalent nowadays among the mothers-to-be as they were, but they still occur and seem to have a reason. For instance, a woman who normally is a heavy tea drinker will now loathe the drink and be content only with milk or a sharp fruit squash.

Nutritional anæmia. This may arise during the early and middle months of child-bearing, just as it may occur among juniors, night-workers and staff who do not know how to look after themselves properly, or who suffered hardship when young. The condition is caused by the body's increased demand for iron which, in its turn, would be due to one or more of the following: heavy menstrual flow; pregnancy; lactation; a "bad time" at confinement and insufficient care afterwards; some form of blood loss; an infection; faulty metabolism; and a diet deficient in iron.

Whatever the cause, an immediate increase in the iron intake is essential. This will probably be started by the doctor's prescription of iron pills but should be assisted by a diet rich in the iron-bearing foodstuffs. This should lead to the formation of new feeding habits: a knowledge of what to select in order to prevent future attacks of this depressing and weakening condition.

Foods rich in iron include green leafy vegetables—spinach, watercress, parsley, green peas and beans, and dandelion; liver (beef liver best of all), beef both fat and lean, dark meat of poultry and game; eggs; wholemeal bread and flour, rye, oatmeal; dried beans and peas, lentils and soya.

Carrots, swede, beet (and beet leaves); walnuts and almonds. Dried figs, prunes, peaches, apricots; raisins, currants, dates, bilberries,

Daily Cheer-Up for 330 Diners

Everything has been done to promote cleanliness and speed in cooking and serving meals—and to provide a cheerful atmosphere—in the new, 330-main meal canteen recently opened by the Solicitors' Law Stationery Society in London. Furniture is of tubular steel and plastic. Canteen area is 3,700 sq. ft. (kitchen 1,000 sq. ft.). Serving counter is fitted with two bain marie hotplates and pressure type tea and coffee sets. *(Intel photo.)*

ripe red berry fruits. Black treacle. Herring, salmon.

Milk, as the calcium source *par excellence* needs no boosting, but it is not a source of iron. People taking a lot of milk must watch that their appetite is not so satisfied with this food-beverage that their intake of iron-bearing foods goes short.

About boils. We cannot here go into the cause of boils and carbuncles. This subject is wide, personal and very controversial. Where the canteen can help is in having a supply of live yeast available to patrons with boils, for a piece of yeast the size of a walnut taken twice or three times daily (neat or with sugar) can greatly help. All the foregoing remarks about the "iron foodstuffs" apply in varying degrees, and not only because the presence of an infection demands an increase of iron intake. Healthful feeding habits may start as a *result* of boils. Good soups made of vegetable stock; green vegetables cooked in relays without soda, promptly served; crisp salads; milk and fruit dishes; wholemeal bread, eggs and the pulses will be found beneficial, plus the yeast.

Junior meals can be a problem, particularly when the youngsters eat too many cakes and sweets an hour or two before their lunch or dinner. Instead of eating a good meal with plenty of vegetables they will pick at it, wastefully, and then fill up early in the afternoon with cakes again. Means should be found to combat this, either by refusing sale of cakes and snacks after a certain hour or by having a quiet little objective talk to the youngsters. Get them to take an intelligent interest in their diet. The welfare officer should be able to help here.

Catarrhal complaints are so varied in their causes and character that they can be but touched on. It is, however, an accepted fact that too much starch and not enough of the fresh foodstuffs and fats does aggravate a tendency to catarrhal troubles and prevents their clearing up.

Allergies are responsible for many cases of catarrh. But even an allergy can often be overcome by increased vitality and resistance, steadier nerves, smoother temper and a zest for life to all of which a generous and *varied* diet unmistakably contributes. To serve a variety of roots and vegetables, freshly cooked (and no soda with greens), is a sure way to win fitness and satisfaction, particularly when their liquors are used in soups and gravies. Real intolerances, however, must be respected.

Diabetes has not been covered here in detail because if the diabetic subject is on a diet, his or her detailed diet sheet must be followed exactly, in which case it would be issued to the kitchen under the responsibility of the caterer. Diet charts supplied by the medical adviser and by a hospital dietician usually give alternative foodstuffs under the various factors or constituents.

For example, cottage pie (containing potatoes, root vegetables and cereals possibly in uncertain quantities) would be no safe alternative to lean beef or mutton in the diabetic diet, because the patient's carbohydrate intake is severely limited if he is on diet. Strict adherence to a diet medicinally ordered becomes a matter of honour to the department, and with a diabetic a matter of life or death.

He or she is trained to carry this responsibility quite naturally. . . . Members of the catering department must shoulder their share of it.

Instal

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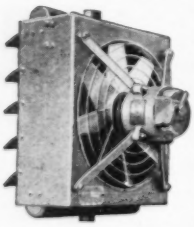
Spiral Tube Unit Heaters provide even warmth without cold spots—as well as rapid temperature rise on starting up. They are available in a range of models for all purposes—for a factory, office or rooms used intermittently—for operation by steam, hot water or electricity. Obtainable from your heating engineers.



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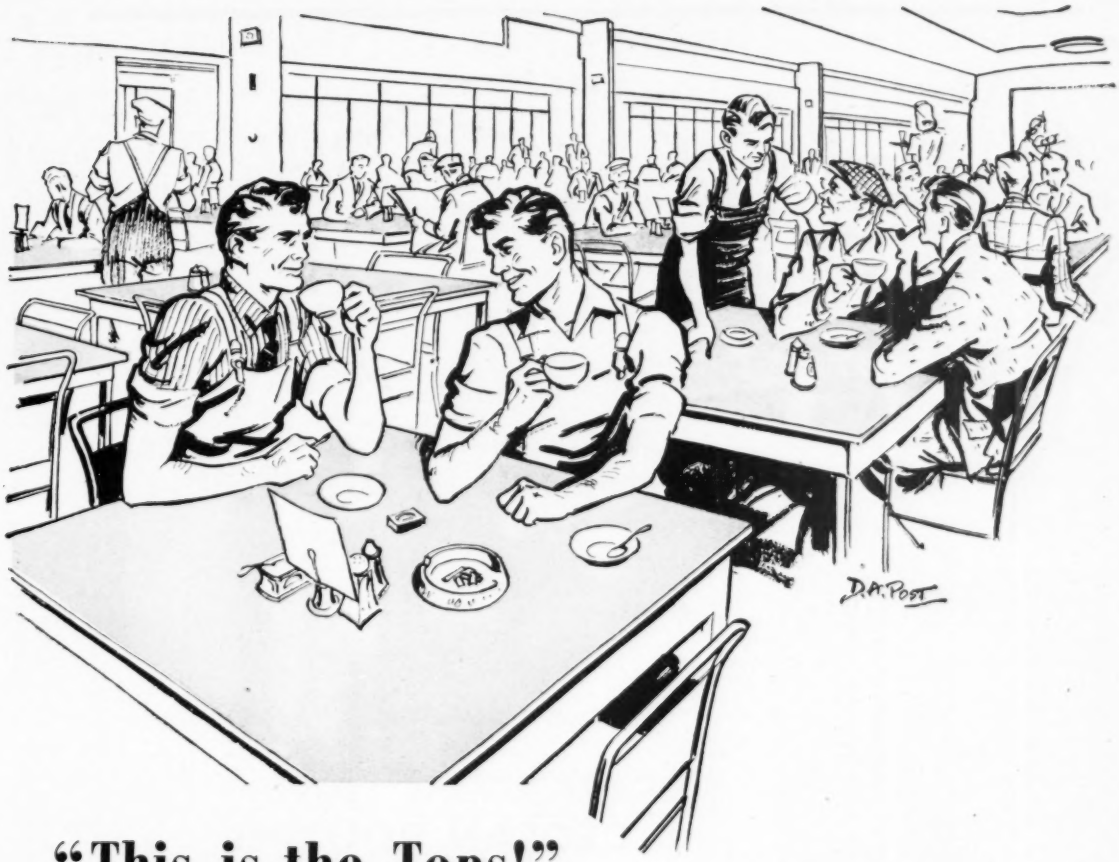

"This is the Tops!"

"What is?—the new bonus scheme, or these new table tops?"

"Both, the management certainly look after us one way or another."

"Well, this stuff brightens the old canteen up; best of it is, it doesn't seem to burn or scratch, and you know how careless some of these lads are!"

"Peggy says it makes their work much easier—just wipes it over—'Looks as nice as ever', she says."

"Bet my missus would like some of this at home—wonder what it's called?"

"DECORPLAST—*so the manager told Peggy—I think I'll enquire where I can get some.*"

"Good idea. Come on, there's the hooter—can't sit in the Ritz all day, you know!"

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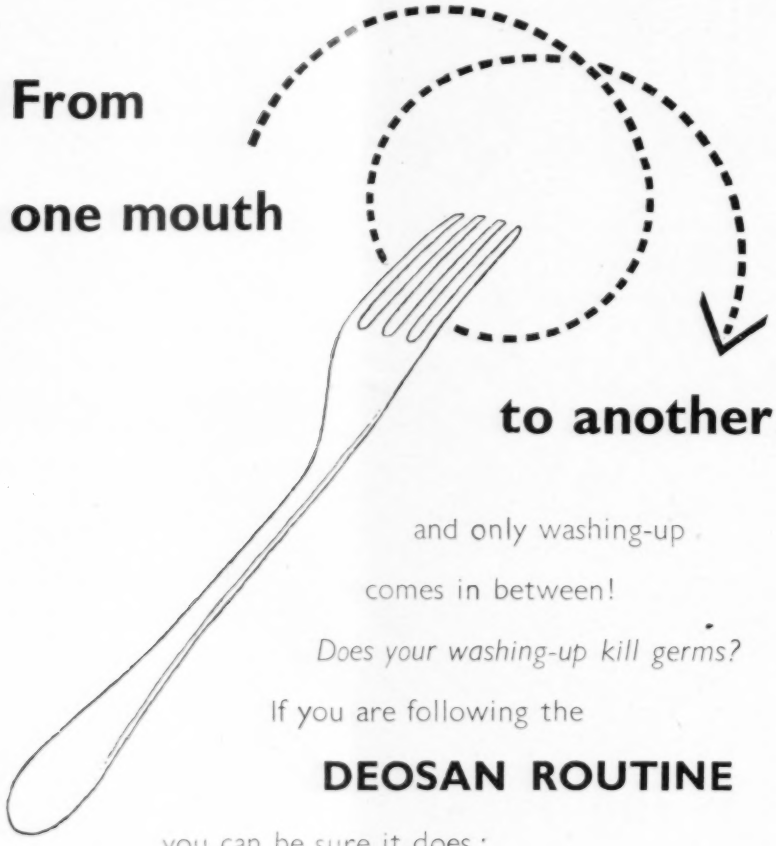
From one mouth



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New Industrial Equipment

EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

Readers who wish to have more particulars of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph.
We are always glad to consider for publication descriptions—preferably accompanied by an illustration suitable for reproduction—of new products.

SAFETY

Telescopic Guard

THIS telescopic drill guard is made from Perspex acrylic sheet. It consists of three interlocking sections and can be used on drills up to and including 2 in. capacity. Easily attached to most drills used on repetition work, the guard is especially recommended by its manufacturers for employment in the drilling of non-

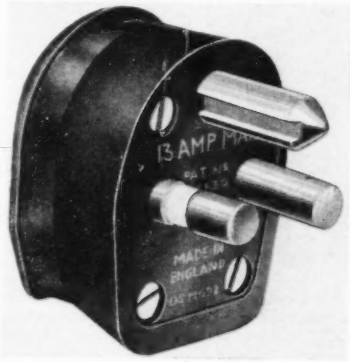
ferrous metals. It gives the operator protection and an unobstructed view of the drill in operation. **(PM/543.)**

Fused Plug

"WHY let one machine stop twenty?" ask the manufacturers of the fused electric plug illustrated here. The purpose of this 13 amp. plug is to give individual protection to a machine. Should a fault occur on that machine, it and it only will be out of action, as the main fuse will not be blown. Identification of the faulty machine is also facilitated.

The body of the plug is of hard rubber and the top of a plastic said to be almost indestructible.

In a test recently carried out by the manufacturers, several of these plugs were dropped from the top of a seven-



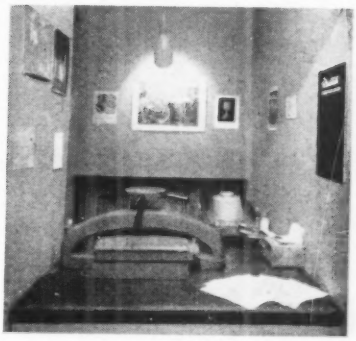
storey building into the street below. None of them was damaged. **(PM/544.)**

ADMINISTRATION

For Clean Sheets

A THIN plastic skin, when heat-sealed to paper, cardboard, glass, wood, metals, plastics, etc., provides a high gloss washable surface designed to withstand most climatic changes. It has many uses in factory and office—for the covering of notices, documents, drawings, charts, maps, sample cards, record cards, and so on. The skin is really a thin, transparent film, .001 to .005 in. thick and of 38 in. maximum width, which is activated by moderate heat (70°-110° C.). No high pressure is required for laminating the skin to paper; an ordinary iron can be used. The resultant high-gloss finish is proof against water, oil and dust, and the laminated sheet can be folded without cracking. A matt surface can also be supplied.

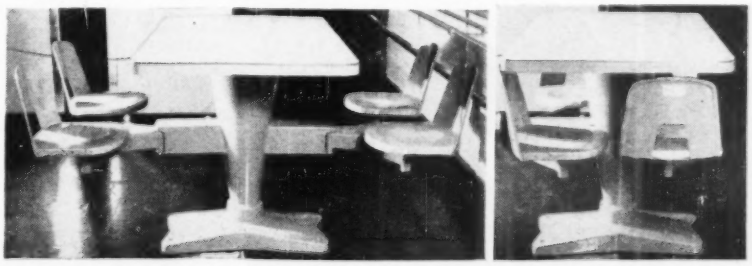
Any heated press may be used to apply the material; alternatively, the manufacturers can supply a press, a typical model being illustrated here. Rolls of material are available in any size. The process has been designed for carrying out by unskilled women workers. **(PM/545.)**



CANTEEN

More Leg Room

FOR canteens which suffer from congestion, here is an idea (below) which has much to commend it. Instead of twenty legs, this combined table-and-four-chairs unit has only one, made of steel. The chairs swing back for easy access, and forward, thus saving quite a deal of space, when not required for



use. Among the advantages claimed for this table, with its laminated plastics top, are these: The unit

Is immune from rodents and termites;

Needs the minimum of maintenance;

Gives 10 per cent. more seating capacity when quantities are used;

Allows great freedom of movement for the customers' legs;

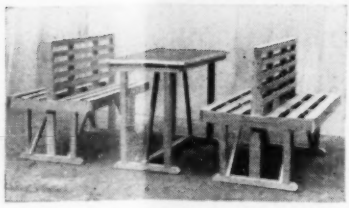
Has a top which will not stain or burn, is impervious to boiling water, but retains heat, thus helping to keep meals hot.

Although it is fixed to the floor by its baseplate, the table can be easily removed for dances or rearrangement. **(PM/546.)**

Canteen Combination

HERE is another type of canteen furniture. Seats and tables have been designed for rough usage, and the purpose of the back-to-back seating is to prevent canteen customers from leaning back, thus weakening joints, as many do on chairs. Backrests of the seats are tapered for comfort.

The table legs are assembled to the frame to allow leg room when the user is entering or leaving his seat. The tops are of plastics, with a metal edge which was added at the request of one management who found that some of



their workpeople were trying to remove the plastics top from the table with a knife.

Space-saving is a strong point of this canteen combination, which occupies a floor space of only 5 ft. by 4 ft. 6 in. in or out of use.

The picture shows the prototype in plain unfinished wood. Sprayed, polished or varnished finishes can be supplied. **(PM/547.)**

MISCELLANEOUS TOOLS

Tough Scraper

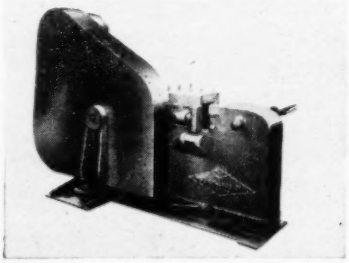
CLAIMED to have "the blade that cannot dig in," this scraper has been developed to tackle a big range of materials as used in a wide cross-section of industry—engineering, building, automotive trade, moulding, coach and ship building, painting, etc. The tungsten carbide blade is said to be of exceptional hardness and is provided with four straight and eight radius cutting edges. The handle is an aluminium casting and the blade—either 1¾ in. or 3 in—is clamped through a locking screw.

Net weight of the tool is 3 oz., size 8½ in. by 1¾ in. by 1 in. Here are some of the jobs for which it is designed: decarbonising i/c engines, scraping bearings and all bedding down applications, preparing steelwork for painting, sprue and mould clearing, and motor body preparation. **(PM/548.)**

Bar Cropper

A RANGE of bar cropping machines has been designed to meet the special requirements of structural and reinforced concrete engineering firms. Round bars, angle, flat and square sections in mild steel can be rapidly cropped to any required length.

The two smaller machines in the range are mounted on low trucks for portable use on site. The third machine (*illustrated*) is of massive proportions, and is suitable only for floor mounting. It takes a 7½ h.p. drive. This machine is capable of



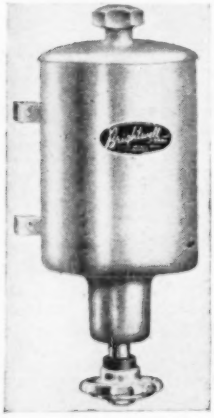
cutting up to 3 in. × 1 in. or 7 in. × ⅜ in. flats, rounds of 2 in. diameter, and squares and hexagons 1¾ in. It will crop bundles of seven bars of ¾ in., 16 of ½ in., 28 of ⅜ in. or 64 of ¼ in. diameter in one operation. With special blades, angles 3 in. × 3 in. × ½ in. can be cut with precision. **(PM/549.)**

HANDLING

Improved Shovel

THE makers of this mobile mechanical shovel set out to produce a machine which would "combine the virtues of both systems of mobile mechanical shovel operation, but avoid the disadvantages of either." On the one hand, cable operation enables it to be used on heavy jobs; on the other, hydraulic control of the winch, providing easy operation, should result in increased output.

Provided with a ½, ¾ or 1 cu. yd. scoop, Fordson Major 39 b.h.p. petrol or 40 b.h.p. diesel engine, operator's cab, 12-volt starting and lighting equipment and six-speed gearbox, the shovel will lift 1 ton to a height of 10 ft. in 4 sec. and lower it in three. A hydraulic booster in the winch mechanism gives finger-tip control of



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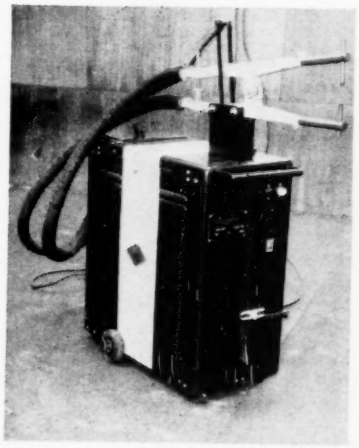
6,000 lb. weight of power at the scoop. A bulldozer blade attachment can be supplied. **(PM/550.)**

WELDING

Spot Welder

TWO models of a new mobile portable and pedestal conversion spot welder are now being produced with a capacity for power factor correction, reducing the nominal rating to 10KVA, built into the equipment. Weld timing is by means of a twenty-four step electronic timer giving fractional control from 3/50ths of a sec. to 5 sec., and welding capacity covers any thickness up to 2 in. by $\frac{1}{16}$ in. mild steel, or 18 gauge to $\frac{3}{16}$in. mild steel with the normal throat depth of 12 in.

The welding head has patent design



leverage exerting a pressure of 160 lb. at the electrodes with follow-through switching incorporated in the hand lever. Electrodes and electrode arms are made of standard diameter copper bar.

The equipment is provided with solid rubber-tyred wheels and has handles at either side of the casing for lifting or being slung from overhead tackle. **(PM/551.)**

WELFARE

Sanitary Towel Service

PICTURED below is a sanitary towel vending machine before and after conversion by a firm of S.T. suppliers. This company offer to convert and recondition obsolete or

unsatisfactory vending machines free of charge in return for a minimum order for their packs (each containing two towels and two pins). Alternatively, the reconditioning will be done for a nominal charge in the absence of an order for the requisite quantity of packs. Once a machine has been reconditioned, it carries a free maintenance service. **(PM/552.)**

This is one of the vacuum cleaning machines for walls and ceilings referred to by John Spence in his article on page 149. (PM/553.)

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Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

STATUTORY INSTRUMENTS

No. 1422. The Fire Services (Appointments and Promotion) Regulations, 1952. Dated July 26, 1952, made by Secretary of State for Home Affairs under Sub-section (1), Section 18, Fire Services Act, 1947(a). *H.M.S.O.* 2*d.* (Amend the Fire Services (Appointments and Promotion) Regulations, 1950, and alter the qualifications required for appointment to a brigade of certain ranks or for their transfer or re-engagement. Operative from August 1, 1952.)

No. 1447. The Firemen's Pension Scheme (No. 2) Order, 1952. Dated July 30, 1952, made by Secretary of State for Home Affairs, in conjunction with the Treasury, under Section 26, Fire Services Act, 1947(a). *H.M.S.O.* 2*d.* (Amends the firemen's pension scheme to bring it into conformity with increased national insurance benefits. Operative from August 1, 1952.)

No. 1466. The National Insurance (Seasonal Workers) Amendment Regulations, 1952. Dated August 1, 1952, made by Minister of National Insurance, in conjunction with the Treasury, under Section 13(4), National Insurance Act, 1946. *H.M.S.O.* 3*d.* (Amend para. (2), Regulation 2, National Insurance (Seasonal Workers) Regulations, 1950, by amplifying definitions of "seasonal worker" and "off season." Operative from August 15, 1952.)

No. 1495. The Factories (Cotton Shuttles) Special Regulations, 1952. Dated August 8, 1952, made by Minister of Labour and National Service under Section 50, Factories Act, 1937(a), Section 8, Factories Act, 1948(b), and Transfer of Functions (Factories, etc. Acts) Order, 1946(c). *H.M.S.O.* 2*d.* (Extend provision and use in cotton cloth factories of shuttles which cannot be threaded by suction of the mouth. Operative from November 1, 1952.)

No. 1526. The Milk Distributive Wages Council (Scotland) Wages Regulation Order, 1952. Dated August 18, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(c). *H.M.S.O.* 4*d.* (Revokes Order M.D.S.(57), and fixes new statutory minimum remuneration payable. Operative from September 3, 1952.)

No. 1536. The Increase of Pensions (General) Regulations, 1952. Dated August 20, 1952, made by the Lords Commissioners of Her Majesty's Treasury under Sub-section 5, Section 3, Pensions (Increase) Act, 1944(a), and the Pensions (Increase) Act, 1952(b). *H.M.S.O.* 4*d.* (Prescribe the way in which claim for increase is to be made by the pensioner and assessed by the pension authority. Operative from August 25, 1952.)

No. 1557. The Retail Bookselling and Stationery Trades Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1952. Dated August 22, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(a). *H.M.S.O.* 3*d.* (Revokes Order R.B.C. (8) and increases statutory minimum remuneration payable. Also amends Order R.B.C. (4) by altering the provisions relating to the calculation of any period of employment qualifying a worker for an annual holiday or accrued holiday pay. Operative from September 19, 1952.)

No. 1558. The Retail Food Trades Wages Council (England and Wales) Wages Regulation Order, 1952. Dated August 22, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(a). *H.M.S.O.* 9*d.* (Revokes Order R.F.C. (9) and substitutes new minimum remuneration payable. Also amends Order R.F.C. (4) and provides the method of calculating the amount of accrued holiday pay due to a worker leaving his employment in certain specified circumstances. Operative from September 19, 1952.)

No. 1572. The Hairdressing Undertakings Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1952. Dated August 25, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(a). *H.M.S.O.* 4*d.* (Amends Order H.U.(8) by increasing statutory minimum remuneration payable. Also amends Order H.U.(4) by altering the provisions relating to the calculation of any period of employment qualifying a worker for an annual holiday or accrued holiday pay. Operative from September 19, 1952.)

No. 1573. The Retail Drapery, Outfitting and Footwear Trades Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1952. Dated August 25, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(a). *H.M.S.O.* 4*d.* (Amends Order R.D.O. (10) by increasing statutory minimum remuneration payable; providing for payment of lower guaranteed weekly rate in certain specified circumstances; substituting a new definition of "shop manager" and "shop manageress." Operative from September 19, 1952.)

No. 1584. The Building (Safety, Health and Welfare) Amendment Regulations, 1952. Dated August 26, 1952, made by Minister of Labour and National Service under Section 60, Factories Act, 1937(a), and Transfer of Functions (Factories, etc. Acts) Order, 1946(b). *H.M.S.O.* 2*d.* (Amend the 1948 Regulations by altering regulation 87 which deals with the use of certain mechanically propelled vehicles and trailers on building sites. Among other amendments the new regulation omits the requirement that these vehicles shall not carry a load greater than that specified as a safe load by the makers or other competent person. Operative from November 1, 1952.)

Draft. The Factories (Testing of Aircraft Engines and Accessories) Special Regulations, 1952. Dated ..... made by Minister of Labour and National Service under Section 60, Factories Act, 1937(a), Section 8, Factories Act, 1948(b), and Transfer of Functions (Factories, etc. Acts) Order, 1946(c). *H.M.S.O.* 4*d.* (Lay down certain safeguards which shall apply to all factories in which the testing of aircraft engines, carburettors or fuel pumps for aircraft is carried on. The Regulations cover the construction of rooms, drainage, ventilation, electrical apparatus, prevention of fire, etc.)

Draft. The Coal Mines (Shallow Workings and Dangerous Deposits) General Regulations, 1952. Dated ..... made by Minister of Fuel and Power under Section 86, Coal Mines Act, 1911(a). *H.M.S.O.* 3*d.* (Supersede regulation 29 of the General Regulations and require that certain precautions are taken to ascertain the existence of and to guard against dangerous materials below the surface.)

Draft. The Coal Mines (Surveyors and Plans) General Regulations, 1952. Dated ..... made by Minister of Fuel and Power under Section 86, Coal Mines Act, 1911(a). *H.M.S.O.* 4*d.* (Requires the appointment of a qualified surveyor to be responsible for preparation of statutory plans of a mine. Amends requirements concerning form and content of such plans.)

GENERAL

Accidents—How they Happen and How to Prevent Them. Issued by the Ministry of Labour and National Service, Factory Department. July, 1952. Vol. 12 (New Series). *H.M.S.O.* 9*d.*

Civil Defence. Manual of Basic Training. Vol. 1. Pamphlet No. 6. Organisation of Civil Defence and Allied Services. Issued by the Home Office, July, 1952. *H.M.S.O.* 1*s.*

INDUSTRIAL COURT AWARDS

No. 2397. Shipbuilding Industry. Reference: That platers' helpers should participate in piecework earnings of plating squads or be paid a lieu bonus when working at piece-work speed with piece-working platers paid piece-work prices or lieu rates. Award: Claim not established. (29/7/52.)

No. 2398. Railway Shopmen. Reference: That the guaranteed day and week agreement for railway workshop staff be amended so that it applies to every week of the year; that time worked on all bank and public holidays be paid at additional half rate; that a day's paid leave be granted in lieu of each bank or public holiday worked. Award: Claim not established. (11/8/52.)

No. 2399. Government Industrial Establishments. Reference: That workers in receipt of 8s. a week maintenance and testers allowance receive this sum in addition to any merit pay awarded in accordance with the merit pay scheme. Award: Claim not established. (11/8/52.)

No. 2400. Government Industrial Establishments. Reference: That women employed in Admiralty Industrial establishments continue to be paid in accordance with agreements of the Shipbuilding Trades' Joint Council dated July 30, 1941, and June 23, 1942. Award: Claim not established. (20/8/52.)

No. 2401. Forestry. Reference: That Forestry Commission workers in Scotland receive twelve days' annual holiday for twelve months' service, plus six days Public Holiday; six of the twelve days to be taken consecutively, and the remaining days as agreed locally. Award: In favour of workmen. (20/8/52.)

No. 2402. Rayon Industry. Reference: Claim for payment of a special allowance of 2d. per hour to leadburners during periods when they are employed under conditions alleged by the union to be dirty and obnoxious. Award: Claim not established. (20/8/52.)

INDUSTRIAL DISPUTES TRIBUNAL

AWARDS

No. 195. Salaries of Administrative, Professional, Technical and Clerical Staffs Employed by Local Authorities in England and Wales. Claim: For specified wage increases. Award: Tribunal awarded as follows: (a) General Division: £160 p.a. at 16 rising to £450 at 30; (b) Increase of £25 p.a. for clerical, higher clerical, administrative, professional and technical grades; (c) salaries of women to be adjusted proportionately; (d) salaries of other classes of employees to be adjusted by negotiation between the two sides of the National Joint Council. (14/7/52.)

No. 196. Computation of Overtime and Holiday Payments in Respect of Certain Workers Employed by an Engineering Firm in London. Claim: That company should continue to compute payment for holidays and overtime on total rate earned per hour. Award: The Tribunal found that the employers had correctly applied the terms of the engineering agreement of November 28, 1950, in computation of holiday and overtime payments. (14/7/52.)

No. 197. Salaries of Certain Workers in the Specialised Film Producing Industry. Claim: For salary increase. Award: Minimum salaries of technicians to be increased by 18s. 4d. a week; trainees and newcomers by 9s. 2d. Consequential adjustments to be made for overtime, insurance and location work. (16/7/52.)

No. 198. Conditions of Employment of Certain Workers Employed in the Specialised Film Producing Industry. Claim: Application by employers for modification of working conditions. Award: Tribunal awarded as follows: (a) Normal working week of 44 hours to be worked over 5 days by employees working in the studio or other normal place of business, and over 5½ days by employees working on location; (b) on location work, existing provisions governing the guaranteed day shall be amended to provide that for the calculation of overtime, guaranteed standard working hours shall be deemed to commence not earlier than 8 a.m. or later than 12 noon; (c) in all other respects the claim of the employers was found not established. (16/7/52.)

No. 199. Rates of Wages of Workers Employed

by Wholesale Newsagents in the London Area. Claim: For wage increase based on parity with workers employed on similar work in newspaper offices. Award: Increase of 16s. a week. (17/7/52.)

No. 200. Wages of Workers Employed in the Gold, Silver and Jewellery Trade in the Midlands. Claim: Increase of 10s. a week for adult males, 5s. for women, with proportionate increases for juveniles; an additional weeks' holiday with pay. Award: In favour of wage claim, but holiday claim not established. (18/7/52.)

No. 201. Rates of Wages and Conditions of Employment of Certain Workers Employed by the Syston Parish Council. Claim: For wages and conditions laid down by the National Joint Council for Local Authorities' Services (Manual Workers). Award: The claim as stated was found not established, but an increase of 5s. a week was awarded to the workers concerned. (18/7/52.)

No. 202. Rates of Wages of Maintenance Engineers Employed by the York Corporation. Claim: For payment of wage rates contained in agreement of the National Joint Council for Craftsmen in Municipal Transport Undertakings, November, 1950. Award: Claim not established. (21/7/52.)

No. 203. Rates of Wages of Certain Workers Employed by a Firm of Retail Grocery and Provision Merchants. Claim: For payment of wage rates contained in agreement of National Joint Committee for the Retail Multiple Grocery and Provisions Trade in England and Wales. Award: Claim not established. (21/7/52.)

No. 204. Remuneration of Platers' Helpers Employed by an Engineering Firm at Dartford, Kent. Claim: That piecework prices for platers' helpers shall be fixed by agrement, and the division of piecework earnings shall yield to platers' helpers the same percentage addition as is applicable to any other class of worker on the same job. Award: Claim not established. (22/7/52.)

No. 205. Conditions Governing the Employment of Certain Road Transport Workers Employed in the Merseyside District. Claim: Application by employers that Clause 4, Section 8, Merseyside Wages Agreement, be amended to permit that carrying a second man shall be optional for solo vehicles up to and including 6 tons. Award: Claim not established. (22/7/52.)

No. 206. Remuneration of Certain Road Transport Workers Employed in the Merseyside District. Claim: For special payment of 8s. a week to men engaged in handling meat, including motor drivers, mates and pool loaders. Award: Claim not established. (22/7/52.)

No. 207. Claim for Payment of Arrears of Wages and Overtime to Certain Workers Employed by a Firm of Heating and Domestic Engineers at Wolverhampton. Claim: For payment of overtime and arrears of wages to three workers. Award: In favour of workmen. (24/7/52.)

No. 208. Rate of Payment for Saturday Morning Work for Workers Employed on a Five-day Week Basis in the Building Brick and Allied Industries in Certain Districts in England and Wales. Claim: For payment of time-and-a-half for Saturday morning work. Award: Payment of time-and-a-quarter for the first two hours and time-and-a-half thereafter. (28/7/52.)

No. 209. Rates of Wages of Disabled Workers Employed by Remploy Ltd. Claim: For specified wage increases. Award: The Tribunal awarded as follows: Increase of 2½d. per hour to workers receiving 2s. 2d. or 2s. 3d. per hour; 2d. increase on 2s. 4d.; 1½d. increase on 2s. 5d.; 1d. increase on 2s. 6d. Workers receiving 2s. 7d. per hour or more to be dealt with under the terms of clause I (c), of agreement dated July, 1951. Minimum commencing rate of 2s. 4½d. to be increased to 2s. 7½d. within two years. (28/7/52.)

No. 210. Rates of Wages of Certain Workers Employed by a Firm of Metal Finishers at Birmingham. Claim: For payment by the company of increases under the terms of national agreement dated January 21, 1952. Award: The Tribunal found that the company were observing the terms of the agreement and awarded accordingly. (28/7/52.)

No. 211. Rates of Wages of Workers in the Glove Manufacturing Industry. Claim: For substantial pay increase. Award: Claim not established. (28/7/52.)

No. 212. Rates of Wages of Certain Workers Employed by a Company Supplying Telephones and other similar Equipment on a Rental Basis. Claim: Substantial wage increase. Award: Increase of 2d. per hour. (30/7/52.)

No. 213. Rates of Wages of Domestic and Similar Grades of Staff Employed in Hospitals and Allied Institutions throughout Great Britain. Claim: Increase of 12s. a week to men and 9s. to women. Award: Increase of 6s. a week to men and 4s. 6d. to women. (31/7/52.)

No. 214. Shift Allowance and Split Duty Payments for Traffic Staff Employed by the Mersey Tunnel Joint Committee. Claim: For 3d. per hour shift allowance, and nine hours payment for eight hours work on split duty turns. Award: Claim not established. (31/7/52.)

No. 215. Overtime Rates of Maintenance Engineers Employed by a Firm in the Leather Manufacturing Industry at Yeovil. Claim: For payment of overtime rates as laid down in general engineering agreements. Award: Claim not established. (1/8/52.)

No. 216. Grading of an Assistant Superintendent at a Hospital at Basingstoke. Claim: That assistant superintendent should be graded "D" in accordance with A.C. Circular No. 17 published by the Whitley Councils for the Health Services. Award: Claim not established. (5/8/52.)

No. 217. Salary Scales of Clerical Staff Employed at the Chief Office of the Scottish Legal Life Assurance Society. Claim: For improved salary scales. Award: The Tribunal awarded that male clerical staff, Grade 3, be paid £2 7s. 6d. a week at 16 rising to £8 10s. at 34; female clerical staff, £2 4s. at 16 rising to £6 3s. at 30; qualified shorthand typists or machine operators 21 and over to get an extra 10s. a week, and learners 5s. a week. (8/8/52.)

No. 218. Salary Scales for Certain Grades of Supervisory Staff Employed by a Road Passenger Transport Undertaking in the Midlands. Claim: For specified salary scales. Award: Claim not established. (12/8/52.)

No. 219. Rates of Wages of Draughtsmen Employed in the Vehicle Building Industry in the United Kingdom. Claim: For wage increase in accordance with settlement between Association of Engineering and Shipbuilding Draughtsmen and the Engineering and Allied Employers' National Federation, December, 1951. Award: The claim as stated was found not established but draughtsmen age 21 and over were awarded an increase of 12s. 6d. a week with proportionate increases to tracers and juveniles. (14/8/52.)

No. 220. Remuneration of Clerical Staff Employed by the Eagle Star Insurance Co. Ltd. Claim: For operation of a basic salary scale. Award: Claim not established. (19/8/52.)

No. 221. Remuneration of Certain Ambulance Workers Employed by the Durham County Council. Claim: That agreed increase of 1½d. per hour be applied to all ambulance personnel. Award: In favour of workers. (19/8/52.)

No. 222. Remuneration of Certain Ambulance Workers Employed by the Durham County Council. Claim: That agreed inconvenience payment of 1½d. per hour should be applied to all ambulance personnel. Award: In favour of workers. (19/8/52.)

No. 223. Observance of Recognised Terms and Conditions of Employment by an Electrical Contractor at Monmouth. Claim: For observance by employer of recognised terms and conditions for the electrical contracting industry. Award: In favour of workers. (19/8/52.)

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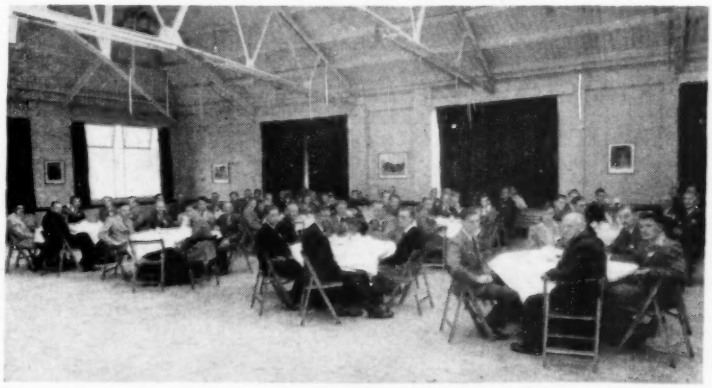

Apprentices at E. K. Cole Ltd., who had made the most progress during the past year received prizes at this teatime meeting with directors and executives, acting as both hosts and mentors. Questions were invited from the apprentices, and a steady change-round at the tables enabled each lad to talk to various members of the management.

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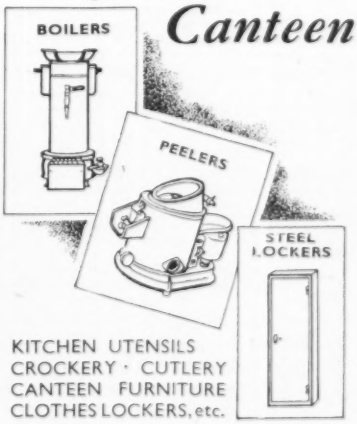

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Management Diary for October

Ashridge
Oct.
27-Nov. 7 "Industry and Management." Bonar Law Memorial College, Berkhamsted, Herts.

British Association for Commercial and Industrial Education
16 "The Presentation of Technical Information." Prof. R. O. Knapp, B. C. Brookes and A. C. Leyton. 8 Hill Street, London, W.1. 6 p.m.
20-24 Training. Roffey Park, Horsham, Sussex. (In collaboration with Roffey Park Institute.)
1-3 Communication Training (Senior Management Course). 8 Hill Street, London, W.1.
20-22 Communication Training (Departmental Management Course). 8 Hill Street, London, W.1.

Illuminating Engineering Society
2 "Lighting for the Prevention of Accidents." E. W. Murray. Providence Hall, Northernhay Street, Exeter. 7 p.m.
2 "Textile Lighting." A. G. Smith. Yorkshire Electricity Board, 45-53 Sunbridge Road, Bradford. 7.30 p.m.
3 "Lighting for the Prevention of Industrial Accidents." E. W. Murray. South-Western Electricity Board Lecture Theatre, Old Bridge, Bath. 7 p.m.

Industrial Welfare Society
6 "Canteens—Working to a budget." Edinburgh.
6 Advisory Meeting. Belfast.
6 Advisory Meeting. Dublin.
7 "Foremanship." Manchester.
8 "Works Information—how can people be kept informed?" 48 Bryanston Square, London, W.1. 2.30 p.m.
9-30 "Thinking Ahead." 48, Bryanston Square, London, W.1. 6 p.m. (Course.)
13 "Manual Lifting and Handling." Manchester.
14 Discussion meeting for secretaries of sports and social clubs. 48 Bryanston Square, London, W.1.
15 Canteens debate. 48 Bryanston Square, London, W.1.
17-20 "What Should the Foreman Do?" Ashridge, Berkhamsted, Herts.
20 Editors Advisory Meeting. Birmingham.
20 "Industrial Law Course." Liverpool.
20 Editors Advisory Meeting. Manchester.
20 Advisory Meeting. Norwich.
21 "Foremanship." Manchester.
27 Advisory Meeting. Sheffield.
27 Advisory Meeting. Leeds.
27 "How to Lead a Discussion Meeting." Birmingham.
27 "Canteens—working to a budget." Cardiff.
31-Nov. 2 "Canteens." Grange-over-Sands.

Institute of Industrial Supervisors
2 "Position of the Foreman in Management." J. Maslin. Sandwell Hotel, West Bromwich. 7.45 p.m.
7 "Costing, Incentives and the Foreman." W. J. H. Tanner. Technical College, Dudley. 7.30 p.m.
8 "Job Evaluation." W. S. Penny. Lecture Theatre, G.E.C., Witton, Birmingham. 7.30 p.m.
9 "Managing Men, Materials and Machines." S. Waugh. Canteen, John Fowler and Son Ltd., Leeds. 7.30 p.m.
9 "The Transfer of Ideas." T. H. Foley. Polytechnic, Regent Street, London, W.1. 7.30 p.m.
14 "Industrial Relations." J. L. Hamilton. South Wales. 7.30 p.m.
15 "Supervision—its functions, requirements and future." E. J. Cruse. C. and J. Clark Ltd., Street. 7.30 p.m.
16 "The New Foremanship." H. R. Harbott. Craven Arms Hotel, Coventry. 7.30 p.m.
16 "The Century of the Foreman." Miss P. Hall. Polytechnic, Woolwich, London, S.E. 7 p.m.
16 "Materials Handling." J. S. Hemingway. Kayser Bondor Ltd., Merthyr, S. Wales. 7.30 p.m.
17 "Job Evaluation." D. S. Mumford. The Settlement, Pontypool, Mon. 7.30 p.m.
20 Joint meeting with Institute of Personnel Management. College of Technology, Leicester. 7.15 p.m.
21 "Industrial Law as it Stands Today." H. Peter Jost. Royal Beach Hotel, Southsea. 6.30 p.m.
21 "Management and Supervision." Carpet Trades Ltd., Kidderminster. 7.30 p.m. (Joint meeting with Institution of Works Managers.)
22 "Relations Between the Scientist and the Craftsman." H. H. T. Alway, C. Thomas and Bros. Ltd., Bristol. 7.30 p.m.
23 "Costing, Incentives and the Foreman." W. C. Scott. Technical College, Dudley. 7.30 p.m.
23 "The Supervisor and Communications." J. Crosbie. Joseph Satkey and Sons Ltd., Wednesbury. 7.30 p.m.
24 "What is this Work Study?" C. W. H. Jones. Houldsworth Hall, Manchester. 7.30 p.m.
28 "Can We Learn from the U.S.A.?" S. Cook. Atkins Bros., Hinckley. 7.30 p.m.
29 "What the Foreman Wants to Know." (Forum.) Butler and Tanner Ltd., Frome. 7.30 p.m.

Institute of Personnel Management
1 "Staff Problems." (Course.) Management House, 8 Hill Street, London, W.1. 6.30 p.m.
6 "Joint Consultation." T. Wylie. Gas Show Rooms, Corporation Street, Coventry. 6 p.m.
8 "Staff Management—Some Current problems in shops and offices." (Course.) College for Distributive Trades, 107, Charing Cross Road, London, W.C.2. 6.30 p.m.
10-12 National Conference. Harrogate. Speakers: Sir Walter Monckton, Lord Terrington, Ven. Mervyn Armstrong, Nigel Balchin, Graham Hutton, Sir Cuthbert Clegg, C. R. Morris, L. Gale.
21 "An American Trade Unionist Looks at Europe." Irving Brown. Shell Mex House, Strand, London, W.C.2. 7 p.m.
23 "The Trade Union Movement and Personnel Management." Lewis Wright. Engineers Club, Manchester. 6.30 p.m.
26-31 "Industrial Relations." Leamington Spa.

Institution of Heating and Ventilating Engineers
15 "Practical Aspect of Heating and Ventilating." J. H. Evans. Imperial Hotel, Birmingham. 6.30 p.m.
14 "Air Conditioning at Home and Abroad." J. R. Harrison. North Thames Gas Board, 178-180 Edgware Road, London, W.2. 6.30 p.m.

Institution of Production Engineers
6 "Some Trends in Production Engineering Education and Training." T. B. Worth. Grand Hotel, Bristol. 7.30 p.m.
13 "Some Aspects of the Study of Working Methods." A. B. Armstrong. Hotel Metropole, King Street, Leeds, 1. 7 p.m.
27 "Apprenticeship Training." B. P. Cooper, Gainsborough, Lincoln. 7.30 p.m.

National Institute of Industrial Psychology
7-8 Course for Supervisors. Newcastle.
8 Supervisors' Extended Course (continued on 15th, 22nd and 29th). London.
13 Vocational Guidance Course (first lecture). London.
13-17 Course I in Selection Methods. Liverpool.
20-24 Course for Managers (part I). London.
23 Vocational Guidance Discussion Groups. (Series I.) London.
27-31 Course I in Selection Methods. Dublin.

Pendley Manor
13-18 Foremen's Course.

Royal Society for the Prevention of Accidents
8 Industrial Safety Conference. Bell Hotel, Leicester.
12-18 Training course for shipyard safety officers. Cliff Hotel, Whitley Bay.

Urchfont Manor
27-Nov. 5 "Consultation in Industry." (For people up to foreman level who are concerned with joint consultation in industry or commerce.)

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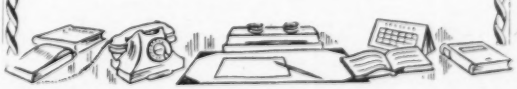

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